## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
(1) Air Filters					
Air Filter (1108)	Purafil "Purafilter" Air Filter / Model : Purafilter / Description : Air Filter with either paperboard of frame material YM CBF-1 or metal frame; and factory-filled with YM SPB-500 filter medium / Dimension : 24" x 24" with thicknesses of 2", 4" or 12"	Purafil Inc., USA	29/5/2019	August 2026	a) The filter is to be marked with the manufacturer's name, country of origin, model name and the standard to which it has been tested. b) This assessment letter supersedes our previous one of the same series dated 4.1.2017. c) This assessment is subject to review by August 2026 or with the updating of the edition of the test standard.
Air Filter (1125)	"Camfil" Air Filters / Filter Model : (a) AeroPleat Eco, AeroPleat III (b) Opakfil (ES/ST/2V) (c) Superpac GM (d) Airopac Close Pleat (e) Ecopleat 3GPF (f) Absolute (VGHF/VE/C/D) (g) Micertain/Absolute Close Pleat (h) Megalam (i) Silent Hood Absolute (j) S-Flo (k) Camplis	Camfil Group, PRC or Malaysia	19/7/2019	October 2029	
Air Filter (1141)	"Welaire®" WSP Series Bag Filter / Model : WSP Series / Description : Bag Filter	Zhongshan Saiver Welaire Airconditioning Equipment Co., Ltd., PRC	8/10/2019	September 2024	The filters shall bear the appropriate identification Markings.
Air Filter (1157)	Purafil "Purafilter" Air Filters / Model : Purafilter / Description : Air filter with either paperboard of frame material YM CBF-1 or metal frame; and factory-filled with YM SPB-500 filter medium / Dimension : 24" x 24" with thicknesses of 2", 4" or 12"	Purafil Inc.	20/11/2019	September 2029	a) The filter is to be marked with the manufacturer's name, country of origin, model name and the standard to which it has been tested.
Air Filter (1162)	"FLECO" Air Filter Units / Filter Model : a) "Separator HEPA Filter", maximum 292mm depth b) "Pleated Filter", maximum 4 in. depth c) "Mini-Pleated Panel, maximum 70mm depth / UL File Number : AJZV.R22353	Kunshan Fleco Filtration Co. Ltd., P.R.C.	13/12/2019	Subject to review with the updating of edition of the test standard	i) The filter shall remain UL listed. (ii) This assessment letter supersedes our previous one of the same series dated 27.1.2014. (iii) This assessment is subject to review with the updating of edition of the test standard.
Air Filter (1169)	Acoustic High Efficiency Air Filter / Filter Model : Acoustic High Efficiency Air Filter	C - Cloud Filter Co., Ltd.	24/2/2020	July 2029	
Air Filter (1170)	Acoustic High Efficiency Air Filter with Antimicrobial Air Purifying Coating / Filter Model : Acoustic High Efficiency Air Filter with Antimicrobial Air Purifying Coating	C - Cloud Filter Co., Ltd.	24/2/2020	November 2029	

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Air Filter (1171)	Acoustic - aided Pre - Filter / Filter Model : Acoustic - aided Pre - Filter	Laizhou Meihe Environmental Technology Co., Ltd.	24/2/2020	November 2029	
Air Filter (1183)	Air Filter with PACO Filter Material / Filter Model : Air filter with PACO filter material	Wisdom Metworks Co, Ltd.	21/5/2020	December 2029	
Air Filter (1185)	"JAF" Air Filter Units / Filter Model: a) "MiraDeep Borsa", maximum 914mm depth b) "LunaKleen", maximum 117mm depth c) "TetraKleen", maximum 117mm depth d) "LunaCel", maximum 292mm depth e) "MiraCel", maximum 292mm depth f) "DeaKleen", maximum 95mm depth g) "DeaCarb", maximum 3/16in. depth h) Replaceable medium, "TerraCarb Acid" i) Replaceable medium, "TerraOxi" j) "12CS Cassette Module", maximum 295mm depth k) "18CS Cassette Module", maximum 441mm depth l) "TerraComb" maximum 150mm depth m) "Grease", maximum 95mm depth / UL File Number: AJZV.R27898	Japan Air Filter Malaysia And Bhd	22/5/2020	Subject to review with the updating of edition of the test standard	i) The filter shall remain UL listed.
Air Filter (1214)	"Hencolin" Air Filters / Filter Model : Dry-type, throw-away air filter units a) "Extended Surface Filter", maximum depth of 4 in. b) "Synthetic Bag Filter", maximum depth of 36 in. c) "HEPA Separator Filter" and "ASHRAE Separator Filter", maximum depth of 12 in. d) "HEPA" Mini-Pleat Filter", maximum depth of 3 in (76mm) / UL File Number : AJZV.R26150	Hencolin International Corporation, Taiwan	11/8/2020	August 2025	a) The filters shall remain UL listed and bear the appropriate identification markings. b) This letter supersedes our previous letters of the same series dated 13.8.2015.
Air Filter (1226)	"Welaire <sup>®</sup> " HEPA Filters / Brand : Welaire <sup>®</sup>	Zhongshan Saiver Welaire Air Conditioning Equipment Co., Ltd.	11/9/2020	April 2025	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.
Air Filter (1239)	"Aire-Plus" Air Filter Units / Filter Model : a) "FineAir I", maximum 292 mm depth b) "RadiCel P" maximum 80 mm depth c) "RadiCel I" maximum 292 mm depth d) "RadiCel II", maximum 83 mm depth e) "PreAir", maximum 95 mm depth / UL File Number : AJZV.R38414	Aire-plus Technology (SIP) Co., Ltd	23/10/2020	October 2025	(i) The filter shall remain UL listed.
Air Filter (1242)	"AAF" Chemical Air Filter Units / Model : Replaceable media, dry type air filter units designated: a) SAAF Medium Duty Cassette b) SAAF Heavy Duty Cassette c) SAAF Commercial Grade Cassette / Replaceable medium, dry type designated: a) SAAF Carb b) SAAF Oxidant c) SAAF Carb MA d) SAAF Carb MB e) SAAF Carb MC f) SAAF Carb MA-HT / UL File Number : AJZV.R2570	AAF International, Louisville, USA	28/10/2020	October 2025	a) The toxicity of products of combustion resulting from exposure to flame has not been investigated.     b) The filters shall remain UL listed and bear the appropriate identification markings.

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Air Filter (1249)	MultiH antimicrobial P1 Filter Material / Filter Model : MultiH antimicrobial P1 Filter Material	Focus Filtration Products (Dongguan) Co., Ltd.	27/11/2020	February 2025	
Air Filter (1252)	"FLECO" Air Filters / Filter Model: a) "Separator HEPA Filter", maximum 292mm depth b) "Pleated Filter", maximum 4 in. depth c) "Mini-Pleated Panel", maximum 70mm depth d) "Separator Filter", maximum 12 in. depth e) "Pocket Filter" maximum 36 in. depth / UL File Number: AJZV.R22353	Kunshan Fleco Filtration Co. Ltd., P.R.C.	4/12/2020	November 2025	(i) The filter shall remain UL listed.
Air Filter (1279)	MultiH <sup>®</sup> HEPA Air Filter / Filter Model : MultiH <sup>®</sup> HEPA Series	Focus Filtration Products (Dongguan) Co., Ltd.	14/5/2021	December 2025	
Air Filter (1280)	MultiH <sup>®</sup> FC510 Series Air Filter / Filter Model : MultiH <sup>®</sup> FC510 Series	Focus Filtration Products (Dongguan) Co., Ltd.	14/5/2021	December 2025	
Air Filter (1288)	MultiH <sup>®</sup> ST350 series Air Filter / Filter Model : MultiH <sup>®</sup> ST350 Series	Focus Filtration Products (Dongguan) Co., Ltd.	4/6/2021	May 2026	
Air Filter (1290)	"Nano" Filter - NF1001 / Filter Model : NF1001	RHT Industries Limited	4/6/2021	May 2026	
Air Filter (1303)	"KLC" Air Filters / Filter Model; a) "KP8" series b) "K56" series c) "K41" series / UL Certificate Number : 20181121-R26298	Guangzhou KLC Cleantech Co., Ltd	13/7/2021	July 2026	i) The filter shall remain UL listed.
Air Filter (1310)	"Merlin-5R" Air Filter / Filter Model : Merlin-5R	NanoFiber Limited	23/8/2021	July 2026	

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Air Filter (1311)	"AAF" Brand Air Filter Units VariCel Dry Type Air Filter / Filter Model : a) VariCel V-70, VariCel V-80 & VariCel V-95 b) VariCel MERV-15 c) AstroCel I, AstroCel II & AstroCel TM / UL Certificate Number : AJZV.R2570	AAF International	23/8/2021	not required	i) The filter products shall remain UL listed. ii) The listed filter products are deemed to be accepted by the FSD subject to such products being in conforming with all local relevant local requirements on products specification and its application in ventilating systems. In this connection, application for renewal of FSD acceptance on these UL listed products is not required.
Air Filter (1312)	"AAF" Brand dry type Air Filter Units & Automatic Roll Filter Media / Filter Model: a) "AmAir100E"."AMAir 200E","AmAir 300E, "AMAir 500E" b) "VariCel" series & VariCel II c) AstroCel I, AstroCel II & AstroCel TM d) Roll-O-Mat Series e) DriPak2000 / UL Certificate Number : AJZV.R2570	AAF International	23/8/2021	not required	i) The filter products shall remain UL listed. ii) The listed filter products are deemed to be accepted by the FSD subject to such products being in conforming with all local relevant local requirements on product specification and its application in ventilating systems. In this connection, application for renewal of FSD acceptance on these UL listed products is not required.
Air Filter (1328)	Pur.Air "PAB" and "PAC" Air Filter Units / Origin: PRC / Product: Cartridge Type Filter (Separator ashrae filter) "PAC" and Bag Type Filter (Synthetic pocket filter) "PAB" / Model: PAC-65, PAC-85 and PAC-95 PAB-65, PAB-85 and PAB-95	Pur. Air Company Limited	17/11/2021	November 2026	a) The filters shall remain UL listed and bear the appropriate identification markings.
Air Filter (1335)	"Nanofil" POF Series Pockets Filter / Filter Model : POF Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	19/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1336)	"Nanofil" FCF-FP-PC and FCF-FP-EC Series Flat Panel Filters / Filter Model : FCF-FP-PC and FCF-FP-EC series / Filter Cell Support Frame work : Galvanized Steel	Nanofil Filtration Technology Limited	19/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1338)	"Nanofil" FCF-MOL Series Filter / Filter Model : FCF-MOL Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.

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Air Filter (1339)	"Nanofil" FCF-PP Series Filter / Filter Model : FCF-PP Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1340)	"Nanofil" MPP-MOL Series Filter / Filter Model : MPP-MOL Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1341)	"Nanofil" FM Series Filtration Media / Model : FM Series / Thickness 18.6 mm	Nanofil Filtration Technology Limited	28/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) No assessment was made on the toxicity of smoke generated under fire condition. iii) Valid test report / supporting evidence shall be made available on request to demonstrate that the filtration media support is of non-combustible materials in compliance with para. 6.1 of Part XI of FSD Circular Letter No. 4/96. iv) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1342)	"Nanofil" FM-MOL Series Filtration Media / Model : FM-MOL Series / Thickness 2.97 mm	Nanofil Filtration Technology Limited	28/1/2022	January 2026	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) No assessment was made on the density and toxicity of smoke generated under fire condition. iii) Valid test report / supporting evidence shall be made available on request to demonstrate that the filtration media support is of non-combustible materials in compliance with para. 6.1 of Part XI of FSD Circular Letter No. 4/96. iv) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.

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Air Filter (1343)	"Nanofil" MPP Series Filter / Filter Model : MPP Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022		i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1344)	"Nanofil" FCF-FP-PC and FCF-FP-EC Series Flat Panel Filters / Filter Model : FCF-FP-PC and FCF-FP-EC Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022		i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1345)	"Nanofil" POF Series Pocket Filter / Filter Model : POF Series / Filter Cell Support Framework : Galvanized Steel	Nanofil Filtration Technology Limited	28/1/2022	·	i) Filter identification shall be provided in compliance with para. 6.5 of Part XI of FSD Circular Letter No. 4/96. ii) Valid supporting evidence on maintaining quality management control on manufacturing and product surveillance audits of your product must be available at all time for verification. Failure to produce the evidence will result in rejection of filter installation in ventilating system.
Air Filter (1354)	"KLC" Air Filters / Brand : KLC / Model : Dry type, throw away air filters units - Separator Filter (HEPA) / Dimension : Maximum 292mm depth	Guangzhou KLC Cleantech Co. Ltd.	30/3/2022	Subject to the validity of listing conditions	The filter shall remain UL listed under ref. AJZV.R26298
Air Filter (1358)	MultiH <sup>®</sup> ST310 Series Air Filter / Filter Model : MultiH <sup>®</sup> ST310 Series	Focus & Co (Far East) Limited	27/4/2022	April 2027	This assessment is subject to review by April 2027

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Air Filter (1385)	"KF-Sunshine" AOP-KF Air Purification Filter / Brand : KF-Sunshine / Model : AOP-KF Air Purification Filter / Dimension : 200mm x 200mm to 500mm x 500mm / Construction : Silicon filter media with metal frame and mesh surface	Sunshine Technology Holdings Ltd.	28/6/2022	June 2027	This assessment is subject to review by June 2027.
Air Filter (1395)	"FCR" MAT-GLAS Series Glass Fibre Roll Air Filter Media / Model : MFV-50R / Thickness : 50 mm	F.C.R. S.p.A., Italy	22/8/2022	·	a) No assessment was made on the density and toxicity of smoke generated under fire condition. b) Valid test report shall be made available on request to demonstrate that the filter cell support framework is of noncombustible materials when tested in accordance with BS 476 Part 4 and have a mechanical strength equivalent to 1 mm thick galvanized sheet steel. c) This assessment is subject to review by July 2027.
Air Filter (1396)	Dust Fighter 95 & Dust Fighter 90 Air Filter Units / Model : Dust Fighter 90 and 95 / UL File No. : R18657 and Vol 1 - Addenum for manufacturer location revised on 05.11.2020	Foshan Shunde Kinglei Environment & Technology Co. Ltd.	26/8/2022	Subject to the validity of listing conditions	The filter shall remain UL listed under ref. AJZV.R18657.
Air Filter (1404)	"AES" Air Filter / Brand and Model : "AES" High Efficiency Bag Filter	Guangdong VITE Air Clean System Co. Ltd.	24/10/2022	October 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The filters shall bear the appropriate identification Markings. c) This assessment is subject to review by October 2027 or with the updating of the edition of the test standard.
Air Filter (1423)	"Nanofil" HEPA Series Filter Media / Model : HEPA Series / Thickness : 44.9 mm	Nanofil Filtration Technology Limited	3/2/2022		(i) No assessment was made on the density and toxicity of smoke generated under fire condition. (ii) Valid test report / supporting evidence shall be made available on request to demonstrate that the filtration media support is of non-combustible materials in compliance with para. 6.1 of Part XI of FSD Circular Letter No. 4/96. (iii) This assessment is subject to review by January 2028.

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Air Filter (1425)	"O.R.V. Manufacturing S.p.A" - Synthetic Filtermedia GC Rete 210 / Brand Name : O.R.V. Manufacturing S.p.A / Model : Air Filter (954) - Synthetic Filtermedia GC Rete 210 / Thickness / Density : 10 mm / 210 g/m <sup>2</sup>	O.R.V. Manufacturing S.p.A	6/2/2023	September 2026	a) Filter identification shall be provided in compliance with para. 6.5. of Part XI of FSD Circular Letter No.4/96. b) No assessment was made on the density and toxicity of smoke generate under fire condition. c) Valid test report / supporting evidence shall be made available on request to demonstrate that the filtration media support is of non-combustible materials in compliance with para. 6.1 of Part XI of FSD Circular Letter No.4/96. d) This assessment is subject to review by 27 September 2026 or with the updating of the edition of the test standard.
Air Filter (1433)	"Aeroglass Filtri srl" Glassfiber Filtermedia DustCollector (50mm in depth) / Brand Name : Aeroglass Filtri srl / Model : Glassfiber Filtermedia DustCollector (50mm in depth) / Thickness / Density : 50 mm / 290 g/m <sup>2</sup>	Aeroglass Filtri srl	28/4/2023	February 2028	a) Filter identification shall be provided in compliance with para. 6.5. of Part XI of FSD Circular Letter No. 4/96. b) No assessment was made on the density and toxicity of smoke generate under fire condition. c) Valid test report / supporting evidence shall be made available on request to demonstrate that the filtration media support is of non-combustible materials in compliance with para. 6.1 of Part XI of FSD Circular Letter No. 4/96. d) This assessment is subject to review by 13.2.2028 or with the updating of the edition of the test standard.
Air Filter (1435)	"Camfil" Air Filter" / Brand and Model : "Camfil" CME Media Roll air filter	Camfil Filtration (Taicang) Co., Ltd.	16/5/2023	May 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The filters shall bear the appropriate identification markings. c) This assessment is subject to review by May 2028 or with the updating of the edition of the test standard.
Air Filter (1446)	"Camfil" CityPleat Air Filter / Brand and Model : "Camfil" CityPleat Filter	Camfil Filtration (Taicang) Co., Ltd.	14/8/2023	August 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The filters shall bear the appropriate identification markings. c) This assessment is subject to review by August 2028 or with the updating of the edition of the test standard.
空氣過濾器 (1456)	"U-Air" Ultrair 空氣過濾器 / 過濾器型號:Ultrair	蘇州悠遠環境科技有限公司	4/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核

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空氣過濾器 (1457)	"U-Air" Uniair H 空氣過濾器 / 過濾器型號:Uniair H	蘇州悠遠環境科技有限公司	10/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1458)	"U-Air" Upleat 空氣過濾器 / 過濾器型號:Upleat	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1459)	"U-Air" Uwash 空氣過濾器 / 過濾器型號:Uwash	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1460)	"U-Air" Uniair M 空氣過濾器 / 過濾器型號:Uniair M	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1461)	"U-Air" Uniair HC 空氣過濾器 / 過濾器型號:Uniair HC	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1462)	"U-Air" Unipak (Chemical Fiber Filter Bag) 空氣過濾器 / 過濾器型號: Unipak (Chemical Fiber Filter Bag)	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
空氣過濾器 (1463)	"U-Air" Unipak (Glass Fiber Filter Bag) 空氣過濾器 / 過濾器型號:Unipak (Glass Fiber Filter Bag)	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1464)	"U-Air" Ultrair MV 空氣過濾器 / 過濾器型號:Ultrair MV	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1465)	"U-Air" Ultrair PTFE 空氣過濾器 / 過濾器型號:Ultrair PTFE	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
空氣過濾器 (1466)	"U-Air" Ultrair HV 空氣過濾器 / 過濾器型號:Ultrair HV	蘇州悠遠環境科技有限公司	12/10/2023	October 2028	a)未對材料在燃時產生煙霧的密度和毒性進行評估 b)過濾器應有適當的識別標記 c)本評估將於2028年10月或隨著測試標準版本的更新進行審核
Air Filter (1477)	"EcoTech" ECO.F7 Bag Filter / Brand and Model : "EcoTech" / ECO.F7	Guangzhou RT Air Filtech Co. Ltd.	11/12/2023	December 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The filters shall bear the appropriate identification Markings. c) This assessment is subject to review by December 2028 or with the updating of the edition of the test standard.
Air Filter (1485)	"Nanofil" VBF Series Air Filter / Brand and Model : "Nanofil" / VBF Series	Nanofil Filtration Technology Limited	28/3/2024	March 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) The filters shall bear the appropriate identification Markings.     c) This assessment is subject to review by March 2029 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Air Filter (1488)	"IIECC" MLN Air Filter Bag / Brand and Model : "IIECC" MLN Air Filter Bag	IIECC (China) Technology Ltd.	16/4/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) The filters shall bear the appropriate identification markings.     c) This assessment is subject to review by April 2029 or with the updating of the edition of the test standard.
Air Filter (1495)	"AES" V Bank Filter / Brand and Model : "AES" / V Bank Filter	Guangdong VITE Air Clean System Co. Ltd.	24/6/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The filters shall bear the appropriate identification markings. c) This assessment is subject to review by May 2029 or with the updating of the edition of the test standard.
Air Filter (1517)	"KLC" K57 Series Mini Pleat Filter / Brand and Model : "KLC" / K57 series	Guangzhou KLC Cleantech Co., Ltd / PRC	28/8/2024	9	a) The filter shall remain UL listed.     b) This assessment is subject to review by August 2029 or with the updating of the edition of the test standard.
Air Filter (1526)	"HONG KONG MISTING" Filter Units / Filter Model : Throw away, dry-type, air filter units designated "LK High Temperature Resistance Filter"	Dandong TianHao Clarification Material Co., Ltd., PRC	11/11/2024	not required	The filter shall remain UL listed that is deemed to be accepted by this Department subject to (i) no change of the listing condition; and (ii) such equipment and the installation being in conformity with all relevant local requirements.
Air Filter (1530)	"Welaire" WGA and WGAF series Pre-filter / Brand and Model : "Welaire" / WGA & WGAF	Zhongshan Saiver Welaire Aircond. Equip. Co., Ltd. / PRC	22/11/2024	November 2029	This assessment is subject to review by November 2029 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
(2) Air Handling Eq	uipment				
Sonic Armour Barrier Mats (1117)	"Gudi" Sonic Armour Barrier Mats (Model: BM3-5R) / Brand Name : Gudi / Model : BM3-5R / Thickness : 3 mm / Material : Mass Loaded durable flexible polymeric and self-reinforcement materials / Application : For the external insulation of ventilation pipework and ductwork	Guangdong Liyin Acoustics Technology Co. Ltd	6/6/2019	January 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by January 2027 or with the updating of the edition of the test standard
Acoustic Noise Barrier Mats (1129)	"WILHAMS " Acoustic Noise Barrier Mat / Brand Name : Revac® Momentum S50 FF / Thickness : 2.5 mm / Material : Class 0 foil faced dense flexible sound barrier mat / Application : For external acoustic insulation of ventilation pipework and ductwork	Wilhams Insulation Ltd	26/7/2019	January 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by January 2028 or with the updating of the edition of the test standard.
Variable Air Volume Box Terminal Unit (1131)	"RSVAV" Variable Air Volume Box / Model : Series TU, Series FP and Series UF / Construction Details : TU Series The basic unit casing is of galvanized steel sheet construction internally lined with fiberglass / elastomeric insulation. All control devices and components are enclosed in a galvanized steel enclosure external to the air stream. FP Series The basic unit casing is of galvanized steel sheet construction internally lined with fiberglass / elastomeric insulation. The unit incorporates a fan-motor assembly comprising a galvanized steel fan wheel and housing and a totally enclosed single phase motor. All control devices and components are enclosed in a galvanized steel enclosure external to the air stream. UF Series The basic unit casing is of steel construction internally lined with elastomeric insulation. All control devices and components are enclosed in a galvanized steel enclosure shield from the air stream. Air grille fitted to the units is of extruded aluminium. For fan-powered units, it incorporates a fan-motor assembly comprising a galvanized steel fan wheel and housing and a totally enclosed single phase motor. Major non-metallic parts: a) The annular shape gasket for volume control damper complies with UL 94 V-0 flame class and UL listed. b) The tubing for velocity pressure control complies with UL 94 V-2 flame class and UL listed. c) The fiberglass insulation is "Owen Corning" Fiberglas® complying with BS 476 Part 6: 1989 (Overall Performance I ≤ 12, Sub-index i₁ ≤ 6) and BS 476 Part 7: 1997 (Class I). d) The elastomeric insulation is "ARMAFLEX" elastomeric foam material complying with BS 476 Part 6: 1989 (Overall Performance I ≤ 12, Sub-index i₁ ≤ 6) and BS 476 Part 7: 1997 (Class I).	Royal Service Air Conditioning (Guangdong) Corp., PRC	2/8/2019	January 2026	a) No assessment was made on the control arrangement of electric heater. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No. 4/96.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER /	FSD	DATE TO	Remarks
		AUTHORIZED	ACCEPTANCE	REVIEW (Subject	
		SUPPLIER	DATE	to Renewal)	
Variable Air Volume Box Terminal Unit (1132)	"Flying Horse" Variable Air Volume (VAV) Terminal Units (Boxes) / Model: VAV - 1000 Series (cooling only) and VAV - 10RH Series (cooling & heating) / Construction Details: All metallic construction with galvanized steel sheet casing which is lined internally with 25 mm thick fiberglass insulation protected by perforated galvanized sheet steel. All control devices and heater control panel are mounted externally to the air stream. Internal Insulation: Insulation material is fiberglass duct liner, ("Owens Corning" fiberglass duct liner board with Black Glass Tissue (BGT) facing, density 32 Kg/m³, with adhesive from PAL® IA811 WB Class 0 / IA911 WB). Major nonmetallic parts: a) Pneumatic tubing shall be "1219 FR Flame Retardant Polyethylene tubing" complies with V-2 flame class and UL listed. b) Rubber gasket shall be Ethylene Propylene Thermoplastic Rubber "Santoprene Thermoplastic Vulcanizate" 251-70W232 complies with V-2 flame class and UL listed.	Dongguan Flying Horse Metal Products Industrial Limited, PRC	2/8/2019	July 2023	a) No assessment was made on the control arrangement of electric heater. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No. 4/96. b) This assessment is subject to review by July 2023 or when the updating of the edition of the test standard.
Acoustic Noise Barrier Mats (1142)	"WILHAMS" Acoustic Noise Barrier Mat / Brand Name: Revac® Momentum S50 FF SGQ / Density: 5.63 kg/m² / Thickness: 27 mm / Material: Class 0 foil faced polymeric decoupled acoustic barrier mat (Acoustic Lagging) / Application: For the insulation supports of ventilation pipework and ductwork	Wilhams Insulation Ltd, United Kingdom	27/9/2019	January 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by January 2028 or with the updating of the edition of the test standard.
Variable Air Volume Box Terminal Unit (1165)	"Johnson Controls" TSS Series Variable Air Volume (VAV) Terminal / Model : Johnson Controls TSS Series VAV Terminal / Construction Details : All metallic construction with galvanized steel sheet casing which is lined internally with fiberglass insulation protected by perforated galvanized sheet steel. All control devices and heater control panel are mounted externally to the air stream. / Major non-metallic parts: a) The rubber foam gasket for volume control damper complies with UL 94 V-0 flame class and UL listed. b) The plastic tubing for velocity pressure control complies with UL 94 HB flame class and UL listed. c) The fiberglass insulation by Owens Corning (China) Investment Co Ltd., complying with BS 476 Part 6:1989 + A1: 2009 (Overall Performance I $\leq$ 12, Sub-index i <sub>1</sub> <6) and BS 476: Part 7: 1997 (Class I). d) The Plastic joints comply with UL 94-V-0 flame class. e) The high density polyethylene bearing complies with UL 94 V-0 flame class.	York Guangzhou Air Conditioning and Refrigeration Co., Ltd., PRC	5/2/2020	April 2025	This assessment is subject to review by April 2025.
Noise Barrier Mats (1247)	"Pyrotek" Wavebar Quadzero Noise Barrier / Brand Name : "Pyrotek" Wavebar Quadzero / Material : A 3.5 mm thick black laminating foil faced polymer backed by a white nonwoven polyester fabric / Density : 8.10 kg/m² / Application : For external acoustic insulation of ductwork	Pyrotek Pty. Ltd.	23/11/2020		a) Valid certificate shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the product under fire condition; c) The foil face shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 21.7.2015; and e) This assessment is subject to review by Aug 2030 or with the updating of the edition of the test standard.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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			FSD	DATE TO	Remarks
		AUTHORIZED	ACCEPTANCE	REVIEW (Subject	
		SUPPLIER	DATE	to Renewal)	
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Variable Air Volume Box	BARCOL-AIR NC Series. NV. NK and NL Series Variable Air Volume Terminals / Model : NC	Barcol-Air Environmental	19/2/2021	December 2025	a) This assessment letter supersedes our previous one of th
Terminal Unit (1267)	Series, NV Series and NK and NL Series / Construction Details : NC Series The base unit casing	Systems (Foshan) Limited,			same series dated 2.12.2015.
,	is of galvanized steel sheet construction incorporates an air distribution plenum internally lined	PRC			
	with 25mm(thk.) fiberglass insulation with black glass tissue facing for model NCOA, NCOC,				
	NCOG and NCOJ. The base unit casing combined with the electric heater section incorporates				
	an air distribution plenum internally lined with 25mm(thk.) fiberglass and galvanized steel inner				
	skin for model NCON and NCOQ. All control devices and components are enclosed in a				
	galvanized steel enclosure external to the air stream. / NV Series The base unit casing is of				
	galvanized steel sheet construction incorporates an air distribution plenum internally lined with				
	closed cell elastomeric foam insulation for model NVOA, NVOC, NVOG and NVOJ. The base unit				
	casing combined with electric heater section incorporates an air distribution plenum internally				
	lined with 25mm (thk.) fiberglass and galvanized steel inner skin for model NVON and NVOQ. All				
	control devices and components are enclosed in a galvanized steel enclosure external to the air				
	stream. / NK/NL Series The base unit casing is of galvanized steel sheet construction				
	incorporates an air distribution plenum for model NKOA and NLOA. The base unit casing is of				
	galvanized steel sheet construction combined with electric heater section incorporates an air				
	distribution plenum with 25mm(thk.) fiberglass external insulation and galvanized steel covers for				
	model NKON and NLON. All control devices and components are enclosed in a galvanized steel				
	enclosure external to the air stream. / Major non-metallic parts: a) The silicone extruded				
	pneumatic tubing for velocity sensor complies with UL94 V-0 flammability flame class and UL				
	listed. b) All gaskets comply with V0 or V1 flammability class when tested to UL94 or UL listed. c)				
	The fiberglass insulation is "Owens Corning" duct liner board type material comprising of black				
	glass tissue bonded on the fiberglass of 32kg/m <sup>3</sup> and remains in full compliance to BS476 Part 6:				
	1989 + A1: 2009 and BS476 Part 7: 1997. d) The closed cell elastomeric insulation is "K-Flex"				
	nitrile rubber based elastomeric foam of 40kg/m <sup>3</sup> and 80kg/m <sup>3</sup> adhere to the steel casing and				
	remains in full compliance to BS476 Part 6: 1989 + A1: 2009 and BS476 Part 7: 1997. / Other				
	Design Features: a) All internal wiring is of high temperature heat resistant silicone rubber				
	insulated cables with outer braiding. b) The electric heater is of black heat type, finned and				
	sheathed with overheat cutout.				
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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Variable Air Volume Box Terminal Unit (1272)	TROX "TVB" Series Variable Air Volume Box / Model: Series TVB / Construction: All metallic construction with galvanized steel sheet casing which is lined internally with 25 mm thick glass mineral wool insulation laminated with woven glass fabric of density 32 kg/m³ or 25 mm thick "Superlon" insulation comprising Nitrile Butadiene Rubber (NBR) of 60 kg/m³. Airflow sensor tubes are made from aluminium tubing. All control devices and components are housed in a galvanized steel enclosure and shielded from the air stream. All non-metallic components within air stream are in compliance with V-0 or V-2 flammability class when tested to UL 94.	TROX Malaysia Sdn. Bhd., Malaysia	26/2/2021		a) Valid certificate shall be maintained; b) No assessment was made on the control arrangement of electric heater as no such information was provided. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No 4 / 96. c) Electric heater shall remain UL listed. d) Test reports of all non-metallic components within air stream including bush, lip seal, rubber, thermal insulations and angle (elbow) shall remain valid. e) This letter supersedes our letter of the same series dated 27.7.2017; and f) This assessment is subject to review by Nov 2023 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED	FSD ACCEPTANCE	DATE TO REVIEW (Subject	Remarks
		SUPPLIER	DATE	to Renewal)	
Variable Air Volume Box Terminal Unit (1299)	BARCOL-AIR NC Series, NV, NK and NL Series Variable Air Volume Terminals / Model: NC Series, NV Series and NK and NL Series / Construction Details: NC Series The base unit casing is of galvanized steel sheet construction incorporates an air distribution plenum internally lined with 25mm(thk.) fiberglass insulation with black glass tissue facing for model NCOA, NCOC, NCOG and NCOJ. The base unit casing combined with the electric heater section incorporates an air distribution plenum internally lined with 25mm(thk.) fiberglass and galvanized steel inner skin for model NCON and NCOQ. All control devices and components are enclosed in sqlavanized steel enclosure external to the air stream. / NV Series The base unit casing is of galvanized steel sheet construction incorporates an air distribution plenum internally lined with closed cell elastomeric foam insulation for model NVOA, NVOC, NVOC, NVOG and NVOJ. The base unit casing combined with electric heater section incorporates an air distribution plenum internally lined with 25mm(thk.) fiberglass and galvanized steel inner skin for model NVON and NVOQ. All control devices and components are enclosed in a galvanized steel enclosure external to the air stream. / Multiple Outlet Attenuator The multiple outlet attenuator section incorporates an air distribution plenum internally lined with 25mm(thk.) fiberglass insulation with black glass tissue facing is connected to base unit casing is of galvanized steel sheet construction incorporates an air distribution plenum with 25mm(thk.) fiberglass external insulation and galvanized steel sheet construction incorporates an air air distribution plenum with 25mm(thk.) fiberglass external insulation and galvanized steel covers for model NKOA and NLOA. All control devices and components are enclosed in a galvanized steel enclosure external to the air stream. / Major non-metallic parts: a) The silicone extruded pneumatic tubing for velocity sensor complies with UL94 V-0 flammability flame class and UL listed. b) All gaskets comply	Barcol-Air Environmental Systems (Foshan) Limited, PRC	2/7/2021	December 2025	a) This assessment letter supersedes our previous one of the same series dated 19.2.2021.
Constant Air Flow Regulator (1367)	"RS-CAVC" Constant Air Flow Regulators / Model: RS-CAVC-IR Series RS-CAVC-Q Series RS-CAVC-R Series and RS-CAVC-DR Series / Construction: The mechanical air flow regulators consist of galvanized metal casing, stainless steel spring, plastic damper seal and TPU film air bag. The regulators are designed to operate with no external power supply required. Major non-metallic parts: a) The air bag (TPU film) is made of "IROGRAN A78P4766" which complies with UL 94 VO flame class and UL listed. b) Damper seal is made of polyethylene mounted on damper edge for air sealing and complies with HF-1 flame class and UL listed.	Royal Service Air Conditioning (Guangdong) Corp., PRC	20/5/2022	April 2027	a) The components shall remain UL listed.     b) This letter is subject to review by April 2027 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Variable Air Volume Terminal Units (1399)	TROX "TVR" Series and "TVRD" Series Variable Air Volume Terminal Units / Brand and Model: TROX "TVR" Series and "TVRD" Series / Construction: All metallic construction with galvanized steel sheet casing which is lined with 50 mm thick fibre glass insulation. Air flow sensor grid is made from aluminium tubes. All control devices and components are housed in a galvanized steel enclosure. All non-metallic components within air stream are in compliance with V-0 or V-2 flammability class when tested to UL 94.	TROX Malaysia Sdn. Bhd., Malaysia	14/10/2022		a) Valid certificate shall be maintained; b) Recommended operating condition for the VAV controllers is between 10 to 50°C. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No. 4/96; c) Test reports of all non-metallic components within air stream including rubber tip seal and hose tubing shall remain valid; d) This assessment is subject to review by October 2027 with the valid supporting test report according to the requirement of FSD Circular Letter No. 3/2020.
Variable Air Volume Box Terminal Unit (1405)	(excluding fan powered type) / Construction Details : The unit casing is of galvanized steel sheet	Dongguan Flying Horse Metal Products Industrial Limited, PRC	31/10/2022		a) No assessment was made on the control arrangement of electric heater. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No. 4/96. b) Test reports of all non-metallic components within air stream shall remain valid c) This assessment is subject to review by Oct 2027 or with the updating of the edition of the test standard with support by valid test reports of an accredited laboratory not over 5 years according to FSD Circular letter No. 3/2020.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Variable Air Volume Box Terminal Unit (1406)	TROX "TVJ/TVJ-D" Series Variable Air Volume Box Terminal Unit / Model: TVJ/TVJ-D Series / Construction Details: All metallic construction with galvanized steel sheet casing which is lined internally with 13 mm thick "ECOWOOL" Ecowool Classic, Board mineral wool insulation of density 24 kg/m³. Blades and Airflow sensor tubes are made from aluminum tubing. All control devices and components are housed in a galvanized steel enclosure and shielded from the air stream. All non-metallic components within air stream are in compliance with V-0 flammability class when tested to UL 94.	TROX Malaysia Sdn. Bhd., Malaysia	2/11/2022	·	a) Valid certificate shall be maintained;     b) Test reports of all non-metallic components within air stream including bush, lip seal rubber, thermal insulations and angle (elbow) shall remain valid;     c) This assessment is subject to review by Nov 2027 or with the updating of the edition of the test standard.
Variable Air Volume Box Terminal Unit (1444)	TROX "TVB" Series Variable Air Volume Box Terminal Unit / Model: TVB Series / Construction Details: All metallic construction with galvanized steel sheet casing which is lined internally with 25 mm thick "ECOWOOL" Ecowool Classic; Board mineral wool insulation of density 32 kg/m³. Airflow sensor tubes are made from aluminum tubing. All control devices and components are housed in a galvanized steel enclosure and shielded from the air stream. All non-metallic components within air stream are in compliance with V-0 or V-2 flammability class when tested to UL 94.	TROX Malaysia Sdn. Bhd., Malaysia	8/8/2023	S S S S S S S S S S S S S S S S S S S	a) Valid certificate shall be maintained; b) No assessment was made on the control arrangement of electric heater. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Part XI of the FSD Circular Letter No.4/96; c) Electric heater shall remain UL Listed. d) Test reports of all non-metallic components within air stream including bush, lip seal rubber, thermal insulations and angle (elbow) shall remain valid; e) This letter supersedes our letter of the same series dated 26.2.2021. f) This assessment is subject to review by Aug 2028 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Variable Air Volume Box Terminal Unit (1452)	"Flying Horse" Variable Air Volume (VAV) Terminal Units (Boxes) / Brand/Model: Flying Horse (a) VAV-1000 Series (cooling or heating); (b) RH Series (electric heater box); (c) VAV-10RH Series (with electric heater); (d) RW Series (hot water coil); (e) VAV-10RW Series (with hot water coil); (f) VAV-10FP Series (with fan powered); (g) MOA Series (multi-outlet attenuator); / Construction Details: VAV-1000 Series (cooling or heating) All metallic construction with galvanized steel sheet casing which is lined internally with 25mm thick fiberglass insulation protected by perforated galvanized sheet steel. All control devices and heater control panel are mounted externally to the air stream. RH Series (electric heater box) The electric heater is of black heat type, finned tubular and sheathed with overheat cutout. VAV-10RH Series (with electric heater) This is a VAV-1000 series VAV box combined with electric heater RH series. RW Series (hot water coil) The hot water coil adopts copper tube and aluminum fin construction, contains 1-row or multi-row high capacity coils, and is equipped with testing valve. VAV-10RW Series (with hot water coil) This is a VAV-1000 series VAV box combined with the twater coil was series. VAV-10FP Series (with 25 mm thick fibre glass insulation. The control panel/electrical devices are enclosed in metallic enclosure external to the air stream.  MOA Series (multi-outlet attenuator) Multi-Outlet Attenuator is used as a separate assembly for fitment to the VAV Terminal Boxes (VAV-1000 series, VAV-10RH series and VAV-10RW series) required more than one outlet. Major non-metallic parts: a) Pneumatic tubing shall be "1219 FR Flame Retardant Polyethylene tubing" complies with V-2 flame class and UL listed. b) Rubber gasket shall be Ethylene Propylene Thermoplastic Rubber "Santoprene ™ Thermoplastic Vulcanizate" 251-70W232 complies with V-2 flame class and UL listed. b) Rubber (Sasm thick and 32 kg/m³ density. Insulation material complies with Black Class Tissue (BGT) facing, 25mm thick and 32 kg/m³	Products Industrial Limited	21/9/2023	·	a) Test reports of all non-metallic components within air stream shall remain valid. b) This assessment is subject to review by September 2028 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Variable Air Volume Boxes (1476)	"TROX" TVS-C and TVS-A VAV Boxes / Brand and Model: TROX "TVS-C' and "TVS-A" / Construction: a) All metallic construction with galvanized steel sheet casing. b) Attenuator section lined with mineral wool having glass fibre facing suitable of air velocities up to 20 m/s. Material rating A2, DIN 4102. c) Air flow sensor grid is made from aluminium tubes. d) Galvanized sheet steel damper blade with Ethylene Propylene Diene Monomer (EPDM) elastomer seal. e) Polyurethane plain bearings.	Trox Air Conditioning Components (Suzhou) Co., Ltd.	8/12/2023	December 2028	a) Valid certificate shall be maintained. b) Test reports of all non-metallic components within air stream shall remain valid. c) This assessment is subject to review by December 2028.
	System Components ated Duct/ Smoke Curtain )	<u> </u>	<u> </u>	<u> </u>	
( Ventuator / Fire Re	ated Ducti Smoke Surtain j				
Fire Rated Duct (1018)	"FirePro / FP-900" Smoke Extraction Ducts / Model: FirePro / FP-900 / System: A steel ductwork system of proprietary design and construction comprising FirePro / FP-900 board supported by galvanized iron (GI) angle sections at the longitudinal system corners and collars formed from GI channels around a GI sheet duct, with Rockwool insulation fitted to some constructions between the board and the steel duct / Product Listing Document: Warrington Certification Ltd.'s Certificate No.: CF 5413 of 24.3.2016 / Compliance Standard: BS 476: Part 24: 1987 / Material: (a) The steel duct is constructed with minimum thickness of 0.8 mm (the minimum thickness under this approval) to 1.2 mm galvanized sheet steel to DW 144 with longitudinal seams formed using the Pittsburgh Lock or Grooved Corner Seam systems; (b) Sheets of "FirePro / FP-900" calcium silicate board with thickness 14 mm/18 mm/24 mm fastened around the steel duct; and (c) "Rockwool" non-combustible stone wool with density of 100 kg/m³ is fitted in between the "FirePro / FP-900" board and the metal sheet steel duct. / Application: Fire resistant ductwork for smoke extraction system for 4-sided applications / Maximun Duct Sizes: 7 500 mm x 2 500 mm high (internal dimensions) / Construction Hanger and Wall Penetration Details: Details of construction, hanger, insulation and penetration seals shall be in accordance with WF Assessment Report No. 336212, Issue 2	Soben International (Asia Pacific) Ltd.	16/4/2018	July 2023	(a) The captioned product shall remain listed by Warringtion Certification Ltd and its listing status will be verified during compliance inspections; (b) The captioned product shall bear the approproate identification markings; (c) A valid certificatie of quality management system certification to suitable international / national standard shall be provided to cover the manufacturing dates of the products during compliance inspections
Powered Terminal Box (1034)	TROX "TFP" Series Fan-Powered Terminal Box / Model : Series TFP / Construction Details : All metallic construction with galvanized steel sheet casing which is lined internally with 25 mm thick glass mineral wool insulation of density 32 kg/m³. Airflow sensor tubes are made from aluminum tubing. All control devices and components are housed in a galvanized steel enclosure and shielded from the air stream. Insulation material is "ECOWOOL, Ecowool Classic" from Malaysia and is in compliance with BS 476 Part 6:1989 (Overall Performance I $\leq$ 12, Sub-index i $\leq$ 6) [Test Report no.: 2016FE025] dated 26.5.2016 by SIRIM QAS International Sdn. Bhd.] and BS 476 Part 7: 1997 (Class 1) [Test Report no.: 2016FE0145 dated 4.4.2016 by SIRIM QAS International Sdn. Bhd.] All non-metallic components within air stream are in compliance with V-0 or V-2 flammability class when tested to UL 94.	TROX Malaysia Sdn. Bhd., Malaysia	9/7/2018	April 2026	a) No assessment was made on the control arrangement of electric heater as no such information was provided. The control and sequence interlocking provisions shall be carried out strictly in accordance with the relevant requirements stipulated in Section 1 of Part XI of the FSD Circular Letter No. 4/96. b) Electric heaters shall remain UL listed. c) Test reports of all non-metallic components within air stream including bush, lip seal rubber, thermal insulations and angle (elbow) shall remain valid. d) Internal insulation within one meter from the heater shall be covered with galvanized sheet metal.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Rated Duct (1053)	Double-Skin Steel and DURASTEEL Ducts for Ventilating and Smoke Extraction System / System : A rectangular galvanized steel sheet ducting system to DW/144 protected by DURASTEEL broad of 6 mm thick and rock wool insulation with a nominal density of 140kg/m³ and the thickness of 2 x 40 mm for Duct A and 2 x 50 mm for Duct B in application requiring insulation / Application : Fire rated ductwork for ventilating/smoke extraction systems excluding kitchen exhaust systems Maximum Duct Sizes : Maximum 6,000 mm (W) x 2,500 mm (H) (internal dimensions) (Please refer to the Exova Warringtonfire WF Assessment Report No.: 380353 (Issue 3) of 13.2.2018 / Material : a) Ductwork is constructed of galvanized steel sheet with longitudinal seams formed using the Pittburgh Lock or Grooved Corner Seam systems as describe in the Exova Warringtonfire WF Assessment Report No. 380353 (Issue 3) of 13.2.2018. b) Ductwork must be constructed with rolled steel angle flanged cross-joints or equivalent roll formed sheet steel profile cross-joints as described in the Exova Warringtonfire WF Assessment Report No. 380353 (Issue 3) of 13.2.2018. c) Ductwork must be constructed in accordance with the requirements of DW/144 "Specification for sheet metal ductwork: low, medium and high pressure/velocity air systems". d) Thermal insulation: Rock wool with a nominal density of 140 kg/m³ and thickness of 2 x 40 mm for Duct A and 2 x 50 mm for Duct B / Construction Hanger and Wall Penetration Details : Details of construction, hanger, insulation and penetration seals for variations in duct size , orientation, etc. shall be in accordance with the details of the test and assessment reports listed below.	Intumex Asia Pacific	14/9/2018	Š	a) All design, fabrication and installation of fire rated ductwork system shall be stuck with a label with clear identification of the ductwork system (e.g. Galvanized sheet steel ductwork protected by 6 mm thick DURASTEEL board with rock wool insulation) at 5 m interval which is supplied by "Intumex Asia Pacific" and certified by the Registered Professional Engineer. b) This assessment is not applicable to kitchen exhaust systems.
Smoke Curtain (1071)	"GELEC G1K1" Automatic Smoke Curtain / Brand Name : GELEC / Model : G1K1	BLE Smoke and Fire Curtains Ltd,, UK	14/11/2018		This assessment is subject to review by October 2023 supported by valid test reports by an accredited laboratory according to FSD Circular letter No. 1/2007.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	
Fire Rated Duct (1139)	Sheet Steel Ductwork Protected by 15mm thick Promatect H Board with Insulation for Ventilating and Smoke Extraction Systems / System: A rectangular galvanized steel sheet ducting system to DW/144, protected by "Promatect-H" boards of 15 mm thick and rock wool insulation of thickness 50 mm and density 100 kg/m³ as described in the WF Assessment Report No. 346620 (Issue 2) / Application: Fire rated ductwork for ventilating/smoke extraction systems excluding kitchen exhaust systems. / Maximum Duct Sizes: a) Maximum 7,500 mm (W) x 2,500 mm (H) (internal dimensions) with maximum section length of 1,220 mm b) For maximum width up to 7,500 mm, construction details should be referred to Warringtonfire WF Assessment Report No. 346620 (Issue 2) of 17.6.2019 / Material: a) Ductwork is constructed of galvanized steel sheet with longitudinal seams formed using the Pittburgh Lock or Grooved Corner Seam systems as described in the WF Assessment Report No. 346620 (Issue 2). b) Ductwork must be constructed with rolled steel angle flanged cross-joints or equivalent roll formed sheet steel profile cross-joints as described in WF Assessment Report No. 346620 (Issue 2). c) Ductwork must be constructed in accordance with the requirements of DW/144 "Specification for sheet metal ductwork: low, medium and high pressure/velocity air systems". d) Gauges (longest side) are as follows: (i) Up to 800 mm - 0.7 mm (ii) Up to 2,500 mm - 1.0 mm (iii) Up to 6,000 mm - 1.2 mm (iv) Up to 7,000 mm - 1.2 mm with construction as detailed in Exova Warringtonfire WF Assessment Report No. 346620 (Issue 2). e) Thermal insulation: Rock wool with a nominal density of 100 kg/m³ and thickness of 1 x 50 mm or 2 x 25 mm.	Pacific) Ltd., PRC	16/9/2019		a) All design, fabrication and installation of fire rated ductwork system shall be stuck with a label with clear identification of the ductwork system (e.g. Glavanized sheet steel ductwork protected 15 mm thick 'Promatect H" fire resistant board with rock wool insulation) at 5m interval which is supplied by "Promat International (Asia Pacific) Ltd." and certified by the Registered Professional Engineer who is responsible for designing and/or installing the smoke control systems or Registered Fire Service Installations Contractor (RFSIC). b) This assessment is not applicable to kitchen exhaust systems. c) This assessment letter supersedes our previous one of the same series dated 13.9.2016. d) This assessment is subject to review by October 2024. e) This letter superseded our previous letter under ref. FP (LC) 316/23 dated 15.8.2019.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Rated Duct (1199)	"Flamebar B.W. 11" Fire Resisting Ductwork System / System: A steel duct system of proprietary design and construction, with a spray of "Flamebar B.W. 11" fire proofing for fire protection and if necessary wrapped with non-combustible stone mineral wool for thermal insulation and reinforced aluminium foil facing to protect the ductwork from mechanical damage. / Material: a) Ductwork is constructed of galvanized steel or stainless steel sheet to DW 144 or from manufacturer's prefabricated steel sections and panels of wall thickness 0.6 mm to 1.2 mm depending on duct size. b) A layer of "Flamebar B.W. 11" thickness 0.7 to 1.0 mm fire proofing spray or brush/roller applied under licence by the manufacturer. c) "ROXUL" or "FPL 110" non-combustible stone mineral wool used for insulation in slab or wrap form with density of 45/60/105/110 kg/m³ and varying thickness of 25mm to 200mm according to the design fire ratings as detailed in Table 1 and 2 of BRE Assessment Report No.: CC88343 Review 5 Issue 2 of 30.11.2016 and Tables 1 and 2 of BRE Assessment Report No. CC 89277A Review 5 Issue 3 of 7.12.2016. d) "INSUL-PHEN CW703" glass cloth reinforced aluminium foil laminate facing for mechanical protection in accordance with 44509the Impact Test Report No. 170890ST170184 and No. 170890ST170184(1). / Application: Fire resisting ductwork for ventilating and/or smoke extraction systems for 4-sided applications. / Maximum Duct Sizes: 21 m wide x 3 m high (internal dimensions) subject to the construction requirements stipulated in the assessment and test reports listed below / Construction Hanger and Wall Penetration Details: Details of construction, hanger, insulation and penetration seals for variations in duct size, fire rating and orientation etc. shall be in accordance with BRE Assessment Report No. CC 88343 Review 5 Issue 2 and BRE Assessment Report No. CC 89277A Review 5 Issue 3 and shall comply with Firespray International Ltd. construction standards drawings included in these two assessment reports.	Firespray International Ltd., U.K.	10/7/2020	March 2023	a) All design fabrication and installation of the fire resisting ductwork system shall be certified with a label stuck at every duct section by The Jardine Engineering Corporation Ltd. (JFC) who shall be holding a valid licence issued by Firespray International Ltd., UK or applicators authorized by JEC. b) Any construction details differ from those described in the above mentioned Assessment and Test Reports shall be endorsed by Firespray International Ltd., UK and submitted for assessment. c) This assessment letter supersedes our previous one of the same series dated 12.10.2017. d) This assessment is subject to review by March 2023 and all certificates, assessment and test reports mentioned above shall remain valid throughout this period.
Fire Rated Duct (1269)	"PROMATECT-H" 25mm Thick Self-Supporting Duct System For Ventilation and Smoke Extraction Ductwork / Assembly Description: Self supporting duct fabricated from 25 mm thick "Promatect-H" boards fastened at corners using 45mm x M4 steel screws at nominal 200mm centres. The corner joints and reinforced internally at corner joints with a framework of steel angle. Ducts with sizes wider than 1220mm shall be fitted the galvanized steel top-hat section and addition drop rods across the width of the duct as detailed in assessment report. / Details of Corner Reinforcement, Support Hangers, Joint Sealant Riser Support, Wall/Floor Penetration Seal, etc.: Details of corner reinforcement, support hanger, joint sealant, riser support, wall/ floor penetration seal etc. shall be as stated in the test and assessment reports. / Maximum Duct Size: 10,000 mm (W) x 3,000 mm (H) with additional steel grid within the duct as detailed in the test and assessment report. / Quality Assurance Scheme: The Manufacturer operates a quality management system to ISO 9001:2015 certified by Bureau Veritas Certification Holding SAS - UK Branch under Certificate No. CNGZ301970-UK of 29.9.2018	"Promatect-H" 25mm thick insulated fire resistant self-supporting duct system for ventilation and smoke extraction installation	22/2/2021		(a) The system should be designed and installed in compliance with the details of construction, penetration seals, support hangers and duct joint sealants as stated in the assessment/test reports. Data should be made available for verification. (b) Ductwork using for smoke extraction system shall be pressure tested to Heating and Ventilating Contractors' Association Specification DW 143 or subsequent amendments in accordance with the requirement as stipulated in the Clause B.17 of 5.23 of Part V, Code of Practice for Minimum Fire Service Installations and Equipment 2012 edition. (c) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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Smoke Barrier (1293)	"KENT" ASC01DH Active Smoke Barrier System / Model: "KENT" ASC01DH Active Smoke Barriers / Type: Electrically operated with "VG455" fabric / Operational Feature: The above automatic smoke curtain system shall be of "fail safe" design that smoke curtains will drop to the designed level when there is a failure in power supply or control. / Product Listing Document: By Element Materials Technology Rotterdam B.V. Certificate of Constancy of Performance No. 2812-CPF-FA5006 issued on 17.02.2020	Kent Smoke and Fire Curtains, Dubai	4/6/2021		a) The captioned product shall remain listed by Element Materials Technology Rotterdam B.V. and its listing status will be verified during compliance inspections. b) The captioned product shall bear the appropriate identification markings. c) Automatic smoke curtain systems shall be designed and constructed according to manufacturer's instructions and listing conditions. d) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections e) This assessment is subject to reviewed by June 2026 or with the updating of the edition of the test standard
Smoke Curtain (1309)	"Forbes" Automatic Smoke Curtain SSC-DH60 / Model : "Forbes" SSC-DH60 Automatic Smoke Curtain / Type : Electrically operated with "R890" steel wire fiberglass fabric material with thickness of 0.92mm and density of $890g/m^2$ / Operation Feature : The above automatic smoke curtain system shall be of "fail safe" design that smoke curtains shall drop to the designed level when there is a failure in power supply or control.	Shenzhen Sherex Fire - Proof Material Limited	20/8/2021		a) The captioned product shall bear the appropriate identification markings. b) Automatic smoke curtain systems shall be designed and constructed according to the manufacturer's instructions and listing conditions. c) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Smoke Curtain (1316)	"Hi-Tech Pro" Automatic Smoke Curtain SSC-DH60 / Model: "Hi-Tech Pro" SSC-DH60 Automatic Smoke Curtain / Type: Electrically operated with "R890" steel wire fiberglass fabric material with thickness of 0.92mm and density of 890g/m². / Operation Feature: The above automatic smoke curtain shall be of "fail safe" design that smoke curtains shall drop to the designed level when there is a failure in power supply or control.	HI-TECH PRO Technology (Dongguan) Co. Limited	28/9/2021	September 2026	a) The captioned product shall bear the appropriate identification markings. b) Automatic smoke curtain systems shall be designed and constructed according to the manufacturer's instructions listing conditions. c) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Ventilator (1317)	"SmokeLite VTL-SLWV-300" - Smoke Ventilator For Static Smoke Extraction Systems / Model: "SmokeLite" VTL-SLWV-300 static smoke ventilator / Type: Single Flap Ventilator / Sizes; Maximum total dimensions (mm): 2400 x 1500 mm (width x height) Maximum throat opening dimensions (mm): 2280 x 1380 mm (width x height) / Construction: Frames: 2.0mm (T) Alloy 6063T6 / T5 Outercover: 2.0mm (T) Aluminium Sheets - Alloy 1100 to Alloy 3005 / Innercover: 1.5mm (T) Aluminium Sheets - Alloy 1100 to Alloy 3005 / Insulation: 50mm (T) 50Kg/m³ Rockwool Mineral Fiber / Rubber Seal: EPDM Rubber / Outercover Options: (1) Multi-Layered Polycarbonate Sheets; (2) Single skin tampered glass (3) Double wall glazing / Rubber Seal: EPDM Rubber / Hinges: Concealed hinges incorporated with extrusions / Actuator: Pneumatic Failsafe Actuator (7-Bar) / Control Panel: 230 Volt Free Control Panel Interface with BMS/Fire Alarm Panel / Mounting: Vertical, in accordance with the manufacturer's recommendations and particular requirements as described in the test and assessment reports listed below.	Ventline Airconditioning Requisites Manufacturing LLC, Dubai, UAE	12/10/2021		i) The Ventilator is of fail safe design. It will be opened automatically when there is failure in electricity supply, control cable or control panel. ii) The captioned product shall bear the appropriate identification markings. iii) The ventilator shall be designed and constructed according to the manufacturer's instructions and listing conditions. iv) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. v) This assessment is subject to review by Oct. 2026 or with the updating of the edition of the test standards.
Ventilator (1413)	"GTI" G5-X-FS Electrical Smoke Exhaust Ventilator / Model : G5-X-FS / Type : Electromagnetic lock with pneumatic gas spring / Operation Features : The above actuators are of "fail safe" design. It will cause smoke vent to open automatically when there is a failure in power supply or control.	Guangdong Kinlong GTI Mechatronic Window Control System Co., Ltd.	19/1/2023		(a) The captioned product shall bear with appropriate identification markings according to BS EN 12101-2:2003. (b) A valid certificate of quality management system certification to suitable international/national standard shall cover the manufacturing dates of the products. (c) This assessment is subject to review by January 2028.
Ventilator (1414)	"GTI" PAS Pneumatic Smoke Exhaust Ventilator / Model : PAS / Type : Pneumatic lock with integral spring / Operation Features : The above actuators are of "fail safe" design. It will cause smoke vent to open automatically when there is a failure in compressed air supply or control.	Guangdong Kinlong GTI Mechatronic Window Control System Co., Ltd.	20/1/2023		(a) The captioned product shall bear with appropriate identification markings according to BS EN 12101-2:2003. (b) A valid certificate of quality management system certification to suitable international/national standard shall cover the manufacturing dates of the products. (c) This assessment is subject to review by January 2028.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Rated Duct (1426)	PROMATECT - H Board 25mm Thick with Thermal Insulation Steel Duct Cladding System (FRR 240/240/240) / Assembly Description: A rectangular galvanized steel sheet ducting system to DW/144, protected by "PROMATECT®-H" boards of 25mm thick and mineral wool insulation of thickness 2x50mm and density 100kg/m³ as described in the FSRG Assessment Report No. FSRG 2022/005/001. / Application: Fire rated ductwork for ventilating/smoke extraction systems excluding kitchen exhaust systems. Quality Assurance Scheme: The manufacturer operates a quality management system to ISO 9001:2015 certified by Bureau Veritas Certification Holding SAS — UK Branch under Certificate No. 91440116786097608J of 14.9.2021. / Maximum Duct Size: Maximum 6,000 mm (W) x 2,500 mm (H) with maximum section length of 1,230mm. / Material: (a) Ductwork is constructed of galvanized steel sheet with longitudinal seams formed using the Pittburgh Lock or Grooved Corner Seam systems as described in the FSRG Assessment Report No. FSRG 2022/005/001. (b) Ductwork must be constructed with rolled steel angle flanged cross-joints or equivalent roll formed sheet steel profile cross-joints as described in FSRG Assessment Report No. FSRG 2022/005/001. (c) Ductwork must be constructed in accordance with the requirements of DW/144 "Specification for sheet metal ductwork: low, medium and high pressure/ velocity air systems". (d) Gauges (longest side) are as follows: (i) Up to 1,000mm — 0.8mm (ii) Up to 2,500mm — 1.0mm (iii) Up to 6,000mm 1.2mm with construction as detailed in FSRG Assessment Report No. FSRG 2022/005/001. (e) Thermal insulation: Mineral wool with a nominal density of 100kg/m³ and thickness of 2 x 50mm. / Construction, Hanger and Wall Penetration Details: Details of construction, hanger, insulation and penetration seals for variations in duct size, orientation, etc. shall be in accordance with the details of the test and assessment reports listed below.	Promat International (Asia Pacific) Ltd.	7/2/2023	December 2027	(a) For application to smoke extraction systems as fire service installations (FSI), all design, fabrication and installation of fire rated ductwork system shall be stuck on ductwork with permanent labels supplied by "Promat International (Asia Pacific) Ltd." for clear identification of the type and model of the steel duct cladding system (e.g. PROMATECT — H Board 25mm Thick with Thermal Insulation Steel Duct Cladding System) at every 5m intervals along the ductwork system. The smoke extraction system including the steel duct cladding system shall be certified by the Registered Professional Engineer who is the responsible for design and/or installing the smoke extraction systems or Registered Fire Service Installations Contractor (RFSIC) in accordance with Code of Practice for Inspection, Testing and Maintenance of Installations and Equipment, 2022 Edition, issued by this Department.  (b) This assessment is not applicable to kitchen exhaust systems.  (c) This letter supersedes our previous letter of the same series dated 9 January 2023.  (d) This assessment is subject to reviewed by December 2027.
Ventilator (1441)	"Kameleon" Smoke Ventilator / Brand and Model: FAS "Kameleon" static smoke exhaust ventilator / Type: Pneumatic lock with integral spring / Sizes: Maximum total dimensions (width x height): 2,604 mm x 1,654 mm Maximum throat opening dimensions (width x height): 2,550 mm x 1,550 mm / Actuator: Pneumatic cylinders with reel mechanisms, type CPS.63.12 / Mounting and Installation Method: Vertical, in accordance with the manufacturer's recommendations and particular requirements as described in the test reports listed below. / Operating Features: Control is generally pneumatic and fully "fail safe" in operation.	FAS Building Products (Shenzhen) Co., Limited	1/8/2023	July 2028	(i) The captioned product shall bear with appropriate identification markings according to BS en 12101-2:2003. (ii) The ventilator shall be designed and constructed according to the manufacture's instructions and listing conditions. (iii) This assessment is subject to reviewed by July 2028 or with the updating of the edition of the test standards.
Smoke Curtain (1443)	"GELEC G1K1" Automatic Smoke Curtain / Brand Name : GELEC / Model : G1K1	BLE Smoke and Fire Curtains Ltd., UK	2/8/2023	June 2028	a) This assessment is subject to review by June 2028 supported by valid test reports by an accredited laboratory according to FSD Circular letter No. 3/2020 and valid certification of quality management system.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Ventilator (1451)	"Meteor" Smoke Ventilator / Brand and Model: FAS "Meteor" static smoke exhaust ventilator / Type: Pneumatic lock with gas springs / Sizes: Maximum total dimensions (width x length): 2,000 mm x 2,720 mm Maximal weight of window flap: 71 kg Actuator: Pneumatic cylinders with reel mechanisms, type CDP.80.20 (Energy source: air with pressure 7.5 Bar) / Mounting and Installation Method: Flat roof, in accordance with the manufacturer's recommendations and particular requirements as described in the test reports listed below. / Operating Features: Control is generally pneumatic and fully "fail safe" in operation.	FAS Building Products (Shenzhen) Co., Limited	21/9/2023		(i) The captioned product shall bear with appropriate identification markings according to BS EN 12101-2:2003. (ii) The ventilator shall be designed and constructed according to the manufacture's instructions and listing conditions. (iii) This assessment is subject to reviewed by September 2028 or with the updating of the edition of the test standards.
Ventilator (1498)	"GTI G5-XST-FS Electrical Smoke Exhaust Ventilator / Brand and Model: "GTI" G5-XST-FS Electrical Smoke Exhaust Ventilator / Type: Electromagnetic lock with pneumatic gas spring / Operating Features: In case of power failure or FS signal is detected, the pneumatic gas spring system will then open the window automatically and keep the window in open position to achieve "Fail Safe" / Application:  (a) Electrical smoke exhaust ventilator used for smoke discharge/vent, not to be used for dual-purpose ventilator.  (b) Suitable for opening a smoke vent in nominal width 2,520mm x nominal height 1,323mm by G5-XST-FS electrical dual chain drive with stretching force of 250kg.	Guangdong Kinling GTI Mechatronic Window Control System Co., Ltd	5/7/2024	·	(i) The captioned product shall bear with appropriate identification markings according to BS EN 12101-2:2003. (ii) The ventilator shall be designed and constructed according to the manufacture's instructions and listing conditions. (iii) This assessment is subject to reviewed by July 2029 or with the updating of the edition of the test standards.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Ventilator (1501)			18/7/2024		(i) The ventilator shall be of fail-safe design. It will be opened automatically when there is failure in electricity supply, air supply, control cable or control panel.  (ii) The captioned product shall bear the appropriate identification markings.  (iii) The ventilator shall be designed and constructed according to the manufacturer's instructions and listing conditions.  (iv) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.  (v) This assessment is subject to reviewed by July 2029 or with the updating of the edition of the test standards.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Rated Duct (1515)	PROMATECT® - H Board 15mm Thick with Mineral Wool to Steel Duct Cladding System (FRR 120/120/120) / Assembly Description: A rectangular galvanized steel sheet ducting system to DW/144, protected by "PROMATECT®-H" boards of 15mm thick and mineral wool insulation of thickness 50mm and density 100kg/m³ as described in the FSRG Assessment Report No. FSRG 2024/002/001 -01 R1 / Application: Fire rated ductwork for ventilating/smoke extraction systems excluding kitchen exhaust systems / Quality Assurance Scheme: The manufacturer operates a quality management system to ISO 9001:2015 certified by Bureau Veritas Certification Holding SAS - UK Branch under Certificate No. CN037624 of 14.9.2021 / Maximum Duct Size: Maximum 10,000 mm (W) x 2,500 mm (H) with maximum section length of 1,250 mm / Material: (a) Ductwork is constructed of galvanized steel sheet with longitudinal seams formed using the Pittburgh Lock or Grooved Corner Seam systems as described in the FSRG Assessment Report No. FSRG 2024/002/001-01R1 (b) Ductwork must be constructed with rolled steel angle flanged cross-joints or equivalent roll formed sheet steel profile cross-joints as described in FSRG Assessment Report No. FSRG 2024/002/001-01R1 (c) Ductwork must be constructed in accordance with the requirements of DW/144 "Specification for sheet metal ductwork: low, medium and high pressure/ velocity air systems" (d) Gauges (longest side) are as follows: (i) Up to 1,000mm - 0.8mm (ii) Up to 2,500mm - 1.0mm (iii) Up to 10,000mm - 1.2mm with construction as detailed in FSRG Assessment Report No. FSRG 2024/002/001-01R1 (e) Thermal insulation: Mineral wool with a nominal density of 100kg/m³ and thickness of 1 x 50mm / Construction, Hanger and Wall Penetration Details: Details of construction, hanger, insulation and penetration seals for variations in duct size, orientation, etc. shall be in accordance with the details of the test and assessment reports listed below.		20/8/2024	August 2029	(a) For application to smoke extraction systems as fire service installations (FSI), all design, fabrication and installation of fire rated ductwork system shall be stuck on ductwork with permanent labels supplied by "Promat International (Asia Pacific) Ltd." for clear identification of the type and model of the steel duct cladding system (e.g. PROMATECT® - H Board 15mm Thick with Thermal Insulation Steel Duct Cladding System) at every 5m intervals along the ductwork system. The smoke extraction system including the steel duct cladding system shall be certified by the Registered Professional Engineer who is the responsible for design and/or installing the smoke extraction systems or Registered Fire Service Installations Contractor (RFSIC) in accordance with Code of Practice for Inspection, Testing and Maintenance of Installations and Equipment, 2022 Edition, issued by this Department.  (b) This assessment is not applicable to kitchen exhaust systems.  (c) This letter supersedes our previous letter of the same series dated 16 September 2019.  (d) This assessment is subject to reviewed by August 2029.
(4) Fire Resisting (	Cables				
Fire Resisting Cable (1003)	HN-Amtb "6387C2", "6387C3", "6387C4" & "6387Cn" Fire Resistant Cables / Model: 6387C2, 6387C3, 6387C4, 6387C1 / Construction: 2, 3, 4 and n-core, stranded plain annealed copper conductors, mica/glass tape, XLPE insulation, galvanized steel wire armour and LSOH outer sheath / Conductor Size: 1.5 - 400 mm² with 2, 3 and 4-core / 1.5 - 2.5 mm² with 7, 10, 12, 19, 27 and 37-core	Tianjin Jinneng Cable Co., Ltd.	10/1/2018	July 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the manufacturer as shown in Appendix "I" and "II" for identification purpose
Fire Resisting Cable (1005)	MAS "FR1CXL" Fire Resistant Cables / Model: FR1CXL / Construction: Single core, stranded plain annealed copper conductor, mica/glass tape with XLPE insulated and LSOH sheathed / Conductor Size: 25 to 70 mm² inclusive	Baosheng Science and Technology Innovation Co., Ltd., PRC	9/1/2018	May 2024	a) Valid certificate(s) and test report(s) shall be maintained,     b) The cables shall be installed in steel conduits, c) The     cables shall bear appropriate markings "FR1CXL-25mm" of     the manufacturer for identification purpose.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cable (1021)	AP Solution Oy " MSSFR0215-M" Fire Resistant Cables used in Fire Service Installations / Model : MSSFR0215-M / Construction : Stranded copper conductors, LSZH insulation, polyester tape, aluminium foil with tinned copper drain wire, LSZH outer jacket / Conductor Size : 2 x 1.5 mm <sup>2</sup>	Petkab Sgv Kablo Turizm Insaat Ltd. Sti., Turkey	26/4/2018	September 2026	a) Valid certificate(s) and test report(s) shall be maintained;     b) The cables shall bear appropriate markings of the     manufacturer for identification purpose.
Fire Resisting Cable (1026)	MAS "Fireres" 694nXFR Armoured Fire Resistant Cables / Model: 694nXFR n-core armoured fire resistant cables (where n runs from 2 to 4) / Construction: Multi-core with stranded plain annealed copper conductors, mica/glass tape, XLPE insulated, n cores laid up, LSOH bedding, galvanized steel wire armoured and LSOH outer sheathed (where n runs from 2 to 4) / Conductor Size: 1.5 mm² and 2.5mm² with 2, 3 & 4 cores	Baosheng Science and Technology Innovation Co., Ltd., PRC	30/5/2018	August 2025	a) Valid certificate(s) and test report(s) shall be maintained,     b) The cables shall bear appropriate markings of the     manufacturer for identification purpose.
Fire Resisting Cable (1056)	"Samson" Fire Resistant Cables / Model: C322 0001 344 (SP704HT/LS) C322 0002 344 (SP705HT/LS) / Construction: Two-core stranded plain annealed copper wires, mica glass tape, XLPE insulation, TACW drain wire, aluminium polyester tape overall screened, fire resistant barrier, LSHF sheath / Conductor Size: 2 x 1.0 mm² and 2 x 1.5 mm² / Rated and Tested Voltages: 300/500V, 500V	Sun Shine Electric Wire And Cable (Shenzhen) Co., Ltd, PRC	19/9/2018	June 2024	a) Valid certificate(s) and test report(s) shall be maintained; b)     The cables shall bear appropriate marking of manufacturer for identification purpose; c) Our previous letter of the same series dated 29.2.2016 is hereby superseded
Fire Resisting Cable (1057)	MAS "FR1CXL" Fire Resistant Cables / Model : FR1CXL / Construction : Single core, stranded plain annealed copper conductor, mica/glass tape with XLPE insulated and LSOH sheathed / Conductor Size : 95 to 1000 mm² inclusive / Rated and Tested Voltages : 600/1000V, 600V	Baosheng Science & Technology Innovation Co., Ltd., PRC	19/9/2018	June 2028	a) Valid certificate(s) and test report(s) shall be maintained; b)     The cables shall bear appropriate markings of the manufacturer for identification purpose;
Fire Resisting Cable (1058)	Cavicel S.p.A "Firecel SR 106H-R-SR/OS/LSZH/SWA/LSZH FR" 19 x 1 mm², 27 x 1 mm², 37 x 1 mm² Fire Resistant Cables / Model : Firecel SR 106H-R-SR/OS/LSZH/SWA/LSZH FR / Construction : Plain annealed copper wire, high performance fire resistant silicone rubber, overall screen: aluminium/polyester tape with copper drain wire, inner sheath: LSZH thermoplastic materials, galvanized steel wire, outer sheath: LSZH thermoplastic materials / Conductor Size : 19 x 1 mm², 27 x 1 mm², 37 x 1 mm²/ Rated and Tested Voltages : 600/1000V, 1000V	Cavicel S.p.A, Italy	19/9/2018	June 2028	a) Valid certificate(s) and test report(s) shall be maintained; b)     The cables shall bear appropriate markings of the manufacturer for identification purpose
Fire Resisting Cable (1062)	"Samson" Fire Resistant Cables / Model : C411 0121 244 (PC251/FR) / Construction : Singlecore stranded plain annealed copper wire, mica glass tape, XLPE Insulation / Conductor Size : 2.5 mm² / Rated and Tested Voltages : 600/1000V, 1000V	Sun Shine Electric Wire And Cable (Shenzhen) Co., Ltd, PRC	30/10/2018	June 2028	a) Valid certificate(s) and test report(s) shall be maintained; b)     The cables shall be installed in steel conduits; c) The cables     shall bear appropriate markings of the manufacturer for     identification purpose

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cable (1093)	"Royal Horse" CU/MICA/XLPE/LSHF/SWA/LSHF (FR30) Fire Resistant Cables / Brand Name : Royal Horse / Model : CU/MICA/XLPE/LSHF/SWA/LSHF (FR30) series	S.G.H. Electric Wire & Cable (Dongguan) Co., Ltd., PRC	26/2/2019		a) Valid certificates shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. c) Cable application shall be according to the requirement in F.S. Circular Letter No. 2/2017; and d) This assessment is subject to review by May 2028 or with the updating of the edition of the test standard.
Fire Resisting Cable (1124)	"Belden" Fire Resistant Cable / Brand Name : Belden / Model : ZA36CFU01 & YJ70323	"Belden" Hirschmann Industries (Suzhou) Limited	17/7/2019		a) Valid certificates shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by December 2025 or with the updating of the edition of the test standard.
Fire Resisting Cable (1140)	MAS "FR1C" Single-core Fire Resistant Cables / Supplier : MAS Cables Ltd. / Model : FR1C single-core fire resistant cables / Construction : Mica/Glass Tape, Low Smoke Zero(LSOH) Insulated Non sheathed single core cable / Conductor Size : FR1C Single Core 95 mm <sup>2</sup>	Baosheng Science and Technology Innovation Co. Ltd., PRC	30/9/2019		a) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose.
Fire Resisting Cable (1156)	"Samson" Fire Resistant Armoured Control Cable / Model : C1320071344 (SC-8723/FR/UG) / Construction : Stranded TACW, 2 Pairs, Mica glass tape, LSHF Insulation, Al. Polyester Tape Pair Screen / Overall Diameter: : 12.2 mm / Rated & Tested Voltage : 300V	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd., PRC	20/11/2019	March 2024	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings for identification purpose; c) This assessment letter supersedes our previous one of the same product dated 25.10.2019.
Fire Resisting Cable (1166)	"Samson" Fire Resistant Single-Core Cable / Brand Name : Samson / Model : C411 01122 XX (PC151/FR) C161 00172 XX (PC152/FR) C411 0121 244 (PC251/FR)	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	17/2/2020		a) The cables shall be enclosed in steel conduit as stipulated in the Test Reports. b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by December 2026 or with the updating of the edition of the test standards.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cable (1167)	"Royal Horse" Single Core Fire Resistant Cables H07Z1-R / Brand Name : Royal Horse / Model : Single Core Fire Resistant Cables H07Z1-R series (1.5 mm² to 240 mm²)	S.G.H. Electric Wire & Cable (Dongguan) Co., Ltd., PRC	17/2/2020		a) Valid certificates shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cables application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by March 2025 or with the updating of the edition of the test standard.
Fire Resisting Cable (1172)	"JLY" BS 8592:2016 Electric Cables / Supplier : Hilly Cables Ltd. / Model : BS 8952:2016 Single-core fire cables / Construction : Thermosetting insulated, non armoured, fire resistant, single-core non-sheathed cable, low emission of smoke and corrosive gases / Conductor Size : Single-core 1.5mm² and 50mm²	JLY Group Co., Ltd.	1/4/2020		a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings (i.e. JLY GROUP CO., LTD or TRICIRCLE and HILLY) of the certification body for identification purpose;
Fire Resisting Cable (1174)	"Royal Horse" CU/MICA/XLPE/LSHF/SWA/LSHF (FR120) Fire Resistant Cables / Brand Name : Royal Horse / Model : CU/MICA/XLPE/LSHF/SWA/LSHF (FR120) 4.0 mm² to 300 mm² with 2, 3 & 4 cores	S.G.H. Electric Wire & Cable (Dongguan) Co., Ltd., PRC	2/4/2020	·	a) Valid certificates shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by September 2028 or with the updating of the edition of the test standard.
Fire Resisting Cable (1184)	"Samson" Fire Resistant Armoured Screened Cable / Brand Name : "Samson" BS 7629-1 Fire Resistant Armoured Screened Cable 300/500V / Model C3220003344 (SP705HT/LS/UG) / Type of cable1.5mm <sup>2</sup> 2-core LSHF steel wire armoured	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd., PRC	22/5/2020	·	a) Valid certificate shall be maintained; b) The cable shall bear appropriate marking of the certification body and trademark for identification purpose. c) Cable application shall be in accordance with the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by Feb 2030 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cable (1209)		Baosheng Science & Technology Innovation Co. Ltd., PRC	30/7/2020	June 2025	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by June 2025. d) No assessment was made on the FRIC Single-core 95mm² as no objection letter of 30.9.2019, under the same reference, has been issued by this Department. e) No assessment was made on FRIC Single-core with conductor size from 120mm² to 300mm² as NO valid test reports were found.
Fire Resisting Cable (1218)	"KME" Mineral Insulated Cables & Terminations / Supplier: Fordex Electric Co. Ltd. / Model: a) MICO-KME Mineral insulated cables 500v Light Duty Grade & 750V Heavy Duty Grade b) Terminations for mineral insulated cables (as detailed under Annex to Approval Certificates No. CA01.00229 and CA01.00230 dated 30.10.2018) / Construction: Cable is composed of copper conductors, magnesium Oxide (MgO) as electrical insulation, copper sheath and LSF additional outer covering / Conductor Size: 500V Light Duty Grade: 1.0 to 4.0mm² with 2-cores; 1.0 to 2.5mm² with 3, 4 & 7-cores b) 750V Heavy Duty Grade: 1.5 to 400mm² with 1-core; 1.5 to 25mm² with 2, 3 & 4-cores; 1.5 to 2.5mm² with 7 & 12-cores; 1.5mm² with 19-core	KME Italy S.p.A.	4/9/2020	July 2025	a) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose
Fire Resisting Cable (1231)	"Caledonian" Fireflix-0101/5 Fire Resisting Cable / Brand Name : Caledonian / Model : Fireflix-0101/5 Single Core 1.5mm <sup>2</sup> FR LSOH Cable	Caledonian (ShanDong) Cables Limited, PRC	19/10/2020	June 2025	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by June 2025 or with the updating of the edition of the test standard.
Fire Resisting Cable (1232)	"Caledonian" Fireflix-RE-2X(St)H-19C01/5-SWA Fire Resisting Cable / Brand Name : Caledonian / Model : Fireflix-RE-2X(St)H-19C01/5-SWA 19 Core 1.5mm <sup>2</sup> FR LSOH SWA Cable	Caledonian (ShanDong) Cables Limited, PRC	19/10/2020	June 2025	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by June 2025 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cable (1233)	"Caledonian" Fireflix-RE-2X(St)H-07C01/5-SWA Fire Resisting Cable / Brand Name : Caledonian / Model : Fireflix-RE-2X(St)H-07C01/5-SWA 7 Core 1.5mm² FR LSOH SWA Cable	Caledonian (ShanDong) Cables Limited, PRC	19/10/2020	June 2025	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by June 2025 or with the updating of the edition of the test standard.
Fire Resisting Cable (1234)	"Caledonian" Fireflix-RE-2X(St)H-37C01/5-SWA Fire Resisting Cable / Brand Name : Caledonian / Model : Fireflix-RE-2X(St)H-37C01/5-SWA 37 Core 1.5mm² FR LSOH SWA Cable	Caledonian (ShanDong) Cables Limited, PRC	19/10/2020	June 2025	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by June 2025 or with the updating of the edition of the test standard.
Fire Resisting Cable (1248)	"Caledonian" Fireflix-RE-2X(St)H-4P022A Fire Resistant Cable / Brand Name : Caledonian / Model Fireflix-RE-2X(St)H-4P022A 300/500V 4 PAIR 22 AWG FR LSOH Cable / Cross Sectional Area of Conductor 0.25mm <sup>2</sup>	Caledonian (ShanDong) Cables Limited, PRC	26/11/2020	September 2030	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) This assessment is subject to review by Sep 2030 or with the updating of the edition of the test standard.
Fire Resisting Cable (1250)	"Caledonian" FFXCAT5E-FTP-4P24-SWA Fire Resistant Cable / Brand Name : Caledonian / Model : FFXCAT5E-FTP-4P24-SWA FTP CAT5E 4 PAIR 24 AWG FR LSOH SWA Cable / Cross Sectional Area of Conductor 0.22mm <sup>2</sup>	Caledonian (ShanDong) Cables Limited, PRC	27/11/2020	September 2030	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) This assessment is subject to review by Sep 2030 or with the updating of the edition of the test standard.
Fire Resisting Cable (1255)	"JLY" BS 7846 F2 Armoured Fire Cables / Supplier : Hilly Cables Ltd / Model : BS 7846 F2 Armoured Fire Cables / Construction : Mica/ Glass Tape, Low Smoke Zero (LSOH) XLPE insulated sheathed multi-core armoured cable / Conductor Size : 2 cores to 4 cores 1.5mm² to $400 \text{mm}^2$	Huizhou Jinlongyu Cable Industrial Development Co., Ltd PRC	28/12/2020	October 2025	A) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose

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Fire Resisting Cable (1259)	"JLY" BS 7846 F2 Armoured Fire Cables / Supplier : Hilly Cables Ltd / Model : BS 7846 F2 Armoured Fire Cables / Construction : Mica/ Glass Tape, Low Smoke Zero (LSOH) XLPE insulated sheathed multi-core armoured cable / Conductor Size : 2 cores to 4 cores 1.5mm² to 400mm²	Huizhou Jinlongyu Cable Industrial Development Co., Ltd PRC	28/12/2020	October 2025	a) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose
Fire Resisting Cables (1268)	"MAS" FR1C Single-core Fire Resistant Cables / Supplier : MAS Cables Ltd. / Model : FRIC Single-Core Fire Resistance Cables / Construction : Mica/ Glass Tape, Low Smoke Zero (LSOH) Insulated Non-sheathed single-core cable / Conductor Size : FRIC Single-core 120mm² to 400mm²	Baosheng Science & Technology Innovation Co. Ltd., PRC	19/2/2021	January 2026	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; c) This assessment is subject to review by Jan 2026. d) For the FRIC Single-core 95mm², no objection letter of 30.9.2019, under the same reference, has been issued by this Department. e) This letter supersedes my previous letter dated 30.7.2020.
Fire Resisting Cables (1281)	"Caledonian" FFX100 07mZ-R Fire Resisting Cable / Brand Name : Caledonian / Model : FFX100 07mZ-R single core FR LSZH cable (1.5 mm² to 70 mm²)	Caledonian (ShanDong) Cables Limited, PRC	18/5/2021	April 2026	a) Valid certificate shall be maintained; b) The cable should be installed in steel conduit. c) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; d) Cable application shall be according to the requirement stipulated in FSD Circular Letter Nos. 2/2017; and e) This assessment is subject to review by April 2026 or with the updating of the edition of the test standard.
Fire Resisting Cables (1292)	Cabletech "C6366FR-ZH" and "C6369FR-ZH" Fire Resisting Cables / Brand Name : Cabletech / Model: C6366FR-ZH & C6369FR-ZH (2 x 0.75 mm <sup>2</sup> & 2 x 1 mm <sup>2</sup> respectively)	FOSHAN SONATA TELECOMMUNICATION CO., LTD., PRC	4/6/2021	June 2026	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement stipulated in FSD Circular Letter No. 2 of 2017; and d) This assessment is subject to review by June 2026 or with the updating of the edition of the test standard.
Fire Resisting Cables (1306)	"Samson" Fire Resistant Twisted Pair Cable / Brand Name : Samson / Model : SP19021HT/LS 300V 2 x 0.65mm <sup>2</sup> LSHF Overall Diameter: 7.8mm	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	16/8/2021	August 2026	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by August 2026 or with the updating of the edition of the test standards.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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Fire Resisting Cables (1307)	"Samson" Fire Resistant Shielded Twisted Pair ControlCable / Brand Name: Samson / Model: SC-8723/FR 300V 2P x 0.34mm² LSHF Overall Diameter:7.4mm SC-8761/FR 300V 1P x 0.34mm² LSHF Overall Diameter:7.0mm SC-8760/FR 300V 1P x 0.79mm² LSHF Overall Diameter:7.6mm	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	16/8/2021	August 2026	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by August 2026 or with the updating of the edition of the test standards.
Fire Resisting Cables (1308)	"Jinlongyu" BS 8592:2016 Single Core Electric Cables / Supplier : Hilly Cables Ltd " Model : BS 8592:2016 Single Core Fire Resistant Cables / Construction : Mica/ Glass Tape, Low Smoke Zero (LSOH) insulated single-core cable / Conductor Size : Single cores 1.5mm² to 70mm²	Huizhou Jinlongyu Cable Industrial Development Co., Ltd PRC	20/8/2021	April 2026	a) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose;
Fire Resisting Cables (1313)	"HN-Amtb" FP1C Fire Resisting Cables / Model: FP1C / Construction : Single core, non-sheathed fire resisting cables with LSOH insulation / Conductor Size : 1.5mm² to 120mm² / Rated and Tested Voltage : 450/750V, 750V	Hebei Huatong Wires & Cable Group Co., Ltd	23/8/2021	December 2025	a) Valid certificates and test reports shall be maintained; b) The cables shall be installed in steel conduits; c) The cables shall bear appropriate markings of the certification body for identification purpose
Fire Resisting Cables (1314)	HN-Amtb FP2C Fire Resisting Cables / Model : FP2C / Construction : Two single core, non-sheathed fire resisting cables twisted with LSOH insulation / Conductor Size : 2 x 1.5 mm² / Rated and Tested Voltage : 600/1000V, 1000V	Hebei Huatong Wires & Cable Group Co., Ltd	23/8/2021	December 2025	a) Valid certificates and test reports shall be maintained; b) The cables hall be installed in steel conduits; c) The cables shall bear appropriate markings of the certification body for identification purpose
Fire Resisting Cables (1318)	"HN-Amtb" Fire Resisting Cables-6387C2, 6387C3, 6387C4 and 6387Cn / Model : 6387C2, 6387C3, 6387C4 and 6387Cn / Construction : 2-core, 3-core, 4-core and n-core, circular or compact or shaped stranded plain annealed copper conductor wrapped by mica/glass tape, with XLPE insulation, galvanized steel wire armour (SWA) and LSOH oversheath. / Conductor Size : 1.5 mm² to 400mm² / Rated and Tested Voltage : 600/1000V	Hebei Huatong Wires & Cable Group Co., Ltd	15/10/2021	December 2025	a) Valid certificates and test reports shall be maintained; b)     The cables shall bear appropriate markings of the certification body for identification purpose;

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cables (1319)	"HN-Amtb" Fire Resisting Cables-FP2C 2 x 2.5mm <sup>2</sup> Single Core Non-sheathed Twisted with LSOH / Model : FP2C / Construction : Two single core non-sheathed fire resistant cables twisted with stranded or solid plain annealed copper conductor, mica/glass tape fire barrier tape with LSOH insulation / Conductor Size : 2 x 2.5 mm <sup>2</sup> / Rated and Tested Voltage : 600/1000V	Hebei Huatong Wires & Cable Group Co., Ltd	15/10/2021	July 2026	a) Valid certificates and test reports shall be maintained; b) The cables shall be installed in steel conduits / cable trunking; c) The cable shall bear appropriate markings of the certification body for identification purpose;
Fire Resisting Cables (1320)	"HN-Amtb" Fire Resisting Cables-FP2C 2 x 1.5mm² (FP1C) Twisted Pair / Model : FP2C / Construction : Two 1.5mm² (FP1C) single core non-sheathed fire-resistant cables twisted with stranded plain annealed copper conductor, mica/glass tape fire barrier tape with LSOH insulation / Conductor Size : 2 x 1.5 mm² / Rated and Tested Voltage : 450/750V	Hebei Huatong Wires & Cable Group Co., Ltd	15/10/2021	June 2026	a) Valid certificates and test reports shall be maintained; b) The cables shall be installed in steel conduits / cable trunking; c) The cable shall bear appropriate markings of the certification body for identification purpose;
Fire Resisting Cables (1322)	"FIRECARE" FR-LS-1P-015-CWZ Fire Resistant Power Cable / Brand Name : Infinite Cable System / Model : FIRECARE FR-LS-1P-015-CWZ 2 X 1.5mm <sup>2</sup>	Jiangsu Zhongtian Technology Co., Ltd.	5/11/2021	October 2026	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by October 2026 or with the updating of the edition of the test standards.
Fire Resisting Cables (1333)	"NEXANS" 0.6/1kV XLPE Insulated and LSOH Sheathed Fire Resisting Cable / Brand Name : Nexans / Model : CU/MICA/XLPE/LSOH/SWA/LSOH 0.6/1kV / Nos. of Core & Normal Cross Section Area : 3 x 2.5 mm <sup>2</sup> to 4 x 400mm <sup>2</sup>	Nexans (Yanggu) New Rihui Cables Co., Limited	30/12/2021	December 2026	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by December 2026 or with the updating of the edition of the test standards.
Fire Resisting Cables (1346)	"Caledonian" Fire Resisting Cable - RE-m2Y(St)HSWAH FR Cable / Brand Name : Caledonian / Model : FIREFLIX Fire Resistant Control Cables RE-m2Y(St)HSWAH FR 2x2x1.0 mm <sup>2</sup>	Caledonian (Shandong) Cables Limited	9/2/2022	,	a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) Cable application shall be according to the requirement stipulated in FSD Circular Letter No. 2 of 2017; and d) This assessment is subject to review by February 2027 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED		DATE TO REVIEW (Subject	Remarks
		SUPPLIER	DATE	to Renewal)	
Fire Resisting Cables (1351)	"NEXANS" 0.6/1kV XLPE Insulated and LSOH Sheathed Fire Resisting Cable / Brand Name: Nexans / Model: CU/MICA/XLPE/LSOH/SWA/LSOH 0.6/1kV / Nos. of Core & Normal Cross Section Area: 3 x 2.5 mm² to 5 x 70mm² 3 x 10 mm² to 4 x 400mm² 2 x 70mm² to 5 x 70mm²	Nexans (Yanggu) New Rihui Cables Co., Limited	30/3/2022	March 2027	a) This letter supersedes our previous letter issued on 30.12.2021. b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. c) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and d) This assessment is subject to review by March 2027 or with the updating of the edition of the test standards.
Fire Resisting Cables (1352)	"NEXANS" 300/500V Fire Resisting Instrument Cable / Brand Name: Nexans /Model: CU/MICA/XLPE/OS/LSZH/SWA/LSZH CU/MICA/XLPE/IS/OS/LSZH/SWA/LSZH / Nos. of Core & Normal Cross Section Area: CU/MICA/XLPE/IS/OS/LSZH/SWA/LSZH Sectional Area: 1.0-1.5mm² Number of Cores: 2P to 14P, 2T to 10T / CU/MICA/XLPE/OS/LSZH/SWA/LSZH Sectional Area: 1.0-1.5mm² Number of Cores: 1P to 14P, 1T to 10T Sectional Area: 1.5-2.5mm² Number of Cores: 2C to 14C	Nexans (Yanggu) New Rihui Cables Co., Limited	30/3/2022	March 2027	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by March 2027 or with the updating of the edition of the test standards.
Fire Resisting Cables (1355)	"Caledonian" FFX400 1mRZ1MZ1-R / Brand Name : Caledonian / Model : FFX 400 1mRZ1MZ1-R Fire Resisting Cable	Caledonian (Shandong) Cables Limited	30/3/2022		a) Valid certificate shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purposed; c) Cable application shall be according to the requirement stipulated in FSD Circular Letter No.2 of 2017; and d) This assessment is subject to review by Feb 2027 or with the updating of the edition of the test standard.
Fire Resisting Cables (1357)	Cavicel SpA "FIRECEL" SR112 (Twisted) Fire Resisting Copper Cables / Model : FIRECEL SR112 (Twisted) / Constrction : Stranded plain annealed copper conductor/ mica/glass tape fire barrier/ cross-link compound insulation; twisted to form a pair / Conductor Size : 1 x 2 x x1.5 mm <sup>2</sup>	Cavicel S.p.A., Italy	8/4/2022	March 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by March 2027.
Fire Resisting Cables (1359)	"MAS" 694nXFR Armoured Fire Resisting Cables / Model: 694nXFR Fire Resistant Armoured Power Cables / Construction: Multi-core cable with stranded plain annealed copper conductor, mica/glass tape, XLPE insulation, n-core laid up, extruded LSOH bedding, galvanized steel wire armour and LSOH outer sheath / Conductor Size: 1.5 mm² to 400mm² / Rated and Tested Voltage: 600/1000V	Baosheng Science and Technology Innovation Co. Ltd., PRC	4/5/2022	November 2026	a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the     certification body for identification purpose; and     c) This assessment is subject to review by November 2026.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

ТҮРЕ	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cables (1362)	"NEXANS" 0.6/1kV XLPE Insulated and LSOH Sheathed Fire Resisting Cable (7 x 1.5mm² to 10 x 2.5mm²) / Brand Name : Nexans / Model : CU/MICA/XLPE/LSOH/SWA/LSOH 0.6/1kV / Nos. of Core & Normal Cross Section Area : 7 x 1.5mm² to 10 x 2.5mm² (Class F120)	Nexans (Yanggu) New Rihui Cables Co., Limited	6/5/2022	May 2027	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) Cable application shall be according to the requirement in FSD Circular Letter No. 2/2017; and c) This assessment is subject to review by May 2027 or with the updating of the edition of the test standards.
Fire Resisting Cables (1368)	"MAS" FR1C and FR2C Fire Resistant Cables / Supplier: MAS Cables Limited. / Model: (i) FR1C; and (ii) FR2C / Construction: (i) Single core, plain annealed stranded copper conductor, mica/ glass tape with LSOH insulated; and (ii) Two single core twisted, plain annealed stranded copper conductor, mica/ glass tape with LSOH insulated / Conductor Size: (i) FR1C 1.5mm² to 70mm²; and (ii) FR2C 2 x 1 x 1.5mm²	Baosheng Science & Technology Innovation Co. Ltd., PRC	20/5/2022	November 2026	a) Valid certificates and test reports shall be maintained; b) FR2C cable shall be installed in steel conduits / cable trunking; c) The cables shall bear appropriate markings of the certification body for identification purpose; and d) This assessment is subject to review by November 2026.
Fire Resisting Cables (1369)	"Caledonian" RE-2X(St)HSWAHCl 500V Fire Resisting Control Cable- 1T1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCl / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 1 x 3 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022	May 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1370)	"Caledonian" RE-2X(St)HSWAH PiMFCl 500V Fire Resisting Control Cable- 2P1.5mm² / Supplier: Caledonian Cables Limited. / Model: RE-2X(St)HSWAH PiMFCl / Construction: TCU/MGT/XLPE/ALIS+ALTO/LSZH/SWA/LSZH / Conductor Size: 2 x 2 x 1.5mm² / Rated and Tested Voltage: 500V	Caledonian (Shandong) Cables Ltd	15/6/2022	May 2027	a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the certification body for identification purpose; and     c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1371)	"Caledonian" RE-2X(St)HSWAHCl 500V Fire Resisting Control Cable- 1P1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCl / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 1 x 2 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022	May 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by May 2027.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cables (1372)	"Caledonian" RE-2X(St)HSWAHCI 500V Fire Resisting Control Cable- 1P2.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCI / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 1 x 2 x 2.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022		a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the     certification body for identification purpose; and     c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1373)	"Caledonian" RE-2X(St)HSWAHCl 500V Fire Resisting Control Cable- 10P1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCl / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 10 x 2 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022	,	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1374)	"Caledonian" RE-2X(St)HSWAHCl 500V Fire Resisting Control Cable- 4X1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCl / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 4 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022	•	a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the certification body for identification purpose; and     c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1375)	"Caledonian" RE-2X(St)HSWAHCI 500V Fire Resisting Control Cable- 5X1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCI / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 5 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022		a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the certification body for identification purpose; and     c) This assessment is subject to review by May 2027.
Fire Resisting Cables (1376)	"Caledonian" RE-2X(St)HSWAHCI 500V Fire Resisting Control Cable- 7X1.5mm² / Supplier : Caledonian Cables Limited. / Model : RE-2X(St)HSWAHCI / Construction : TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size : 7 x 1.5mm² / Rated and Tested Voltage : 500V	Caledonian (Shandong) Cables Ltd	15/6/2022		a) Valid certificates and test reports shall be maintained;     b) The cables shall bear appropriate markings of the     certification body for identification purpose; and     c) This assessment is subject to review by May 2027.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cables (1380)	"MAS" FR1C and FR2C Fire Resistant Cables / Supplier : MAS Cables Limited. / Model : (i) FR1C; and (ii) FR2C / Construction : (i) Single core, plain annealed stranded copper conductor, mica/ glass tape with LSOH insulated; and (ii) Two single core twisted, plain annealed stranded copper conductor, mica/ glass tape with LSOH insulated / Conductor Size : (i) FR1C 1.5mm² to 70mm²; and (ii) FR2C 2 x 1 x 1.5mm²	Baosheng Science & Technology Innovation Co. Ltd., PRC	20/6/2022	November 2026	a) Valid certificates and test reports shall be maintained; b) The cables shall be installed in steel conduits / cable trunking; c) The cables shall bear appropriate markings of the certification body for identification purpose; and d) This assessment is subject to review by November 2026.
Fire Resisting Cables (1386)	"Caledonian" RE-2X(St)HSWAHCl 500V Fire Resisting Control Cable- 2P1.5mm² / Supplier: Caledonian Cables Limited. / Model: RE-2X(St)HSWAHCl / Construction: TCU/MGT/XLPE/ALTO/LSZH/SWA/LSZH / Conductor Size: 2 x 2 x 1.5mm² / Rated and Tested Voltage: 500V	Caledonian (Shandong) Cables Ltd	28/6/2022	March 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by March 2027.
Fire Resisting Cables (1408)	"Caledonian" Fire Resisting HIGH TEMPERATURE FFX100 07mZ-U 1/C 1 sq.mm (1/1.13) CU/FR/LSZH 450/750V / Supplier: Caledonian Cables Limited. / Model: HIGH TEMPERATURE FFX100 07mZ-U 1/C 1 sqmm (1/1.13) CU/FR/LSZH 450/750V / Construction: Plain annealed copper wire/mica-glass tape/ LSZH compound (High temperature) / Conductor Size: 1/C 1.0mm² / Rated and Tested Voltage: 450/750V		30/11/2022	April 2027	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by April 2027.
Fire Resisting Cables (1437)	"Samson" Fire Resistant Twisted Pair Cables / Brand Name : Samson / Model : SP3202HT/LS 300V 2 x 1mm² LSHF Overall Diameter: 8.1 mm SP3025HT/LS 300V 2 x 1.5mm² LSHF Overall Diameter: 9.0mm	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	19/06/2023	June 2028	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) This assessment is subject to review by June 2028 or with the updating of the edition of the test standards.
Fire Resisting Cables (1450)	"Caledonian" FFX200 Series Fire Resisting Cables / Model : FFX200 05SOZ1-U, FFX200 05SOZ1-R / Construction : CU/ SR insulation/ AL foil screen/ LSZH sheath / Conductor Size : 2 x 1.0mm² to 4.0mm²; 3, 4 x 1.5mm² to 4.0mm²; 7, 12 x 1.5mm² to 2.5mm²; 19 x 1.5mm² / Rated and Tested Voltage : 600/1000V	Caledonian (Shandong) Cables Limited	13/9/2023	September 2028	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; and c) This assessment is subject to review by September 2028 or with the updating of the edition of the test standards.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Resisting Cables (1480)	"Samson" Fire Resistant Armoured Control Cable Shielded 22AWG 2P / Brand Name : Samson / Model : SC-8723/FR/UG 300V 22AWG x 2P LSHF Overall Diameter: 12.2mm	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	10/1/2024	January 2029	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose.     b) This assessment is subject to review by January 2029 or with the updating of the edition of the test standards.
Fire Resisting Cables (1486)	"MAS" FR1C Single-core Fire Resistant Cable / Supplier : MAS Cables Limited / Model : FR1C Single-core Fire Resistant Cable / Construction : Mica/ Glass Tape, Low Smoke Zero Halogen (LSOH) Insulated, Non Sheathed Single Core Cable / Conductor Size : FR1C Single-core 95mm² / Rated and Tested Voltage : 600/1000V	Baosheng Science & Technology Innovation Co. Ltd.	28/3/2024	March 2029	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) This assessment is subject to review by March 2029 or with the updating of the edition of the test standards; d) No assessment was made on FR1C Single-core with conductor size from 120mm² to 300mm² as NO valid test reports were found.
Fire Resisting Cables (1492)	"Caledonian" TP302 Series Fire Resistant Cables (FIREFLEX-1201/0) / Model : FIREFLEX-1201/0 / Construction : Plain copper, mica tape, XLPE insulation, LSOH sheath / Conductor size : 1.0 mm² with 12 core / Rated and Tested Voltage : 450/750V and 750V	Caledonian (Shandong) Cables Limited, PRC	2/5/2024	April 2029	a) Valid test report and certificate shall be maintained; b) The cables shall bear appropriate markings of the manufacturer for identification purpose; and c) This assessment is subject to review by April 2029.
Fire Resisting Cables (1497)	"Samson" Fire Resistant Screened Cable SP704HT/LS and SP705HT/LS / Brand Name : Samson / Model : SP704HT/LS 300/500V 2 x 1.0mm² LSHF Overall Diameter: 9.2mm, SP705HT/LS 300/500V 2 x 1.5mm² LSHF Overall Diameter: 10mm.	Sun Shine Electric Wire and Cable (Shenzhen) Co., Ltd.	5/7/2024	June 2029	a) The cables shall bear appropriate markings of the certification body and trademark for identification purpose. b) This assessment is subject to review by June 2029 or with the updating of the edition of the test standards.
Fire Resisting Cables (1499)	"a&b" ABFC series Fire Resisting Cables / Supplier: Brilliant Lighting Limited / Model: ABFC-2A, ABFC-3A, ABFC-4A and ABFC-7-37A / Construction: 2-core, 3 cores, 4 cores, 7 to 37 cores XLPE insulation, LSZH sheathed, mica glass tapping and galvanized steel wire armour / Conductor Size: 1.5mm² to 400mm² and 1.5mm² to 2.5mm² / Rated and Tested Voltage: 600V / 1000V.	Qindao Yilan Cable Co., Ltd	8/7/2024	June 2029	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; c) This assessment is subject to review by June 2029.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED	FSD ACCEPTANCE	DATE TO REVIEW (Subject	Remarks
		SUPPLIER	DATE	to Renewal)	
Fire Resisting Cables (1505)	"MAS" FR1CXL Single-core Fire Resistant Cables / Supplier: MAS Cables Limited / Model: FR1C Single-core Fire Resistant Cable / Construction: Single Core, plain annealed stranded copper conductor, mica/ glass tape with XLPE insulated and LSOH sheathed / Conductor Size: FR1CXL Single-core 1.5mm² to 70mm² / Rated and Tested Voltage: 600/1000V.	Baosheng Science & Technology Innovation Co. Ltd.	2/8/2024		a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) This assessment is subject to review by August 2029 or with the updating of the edition of the test standards; d) No assessment was made on FR1CXL Single-core with conductor size from 95mm² to 1,000mm² as NO valid test reports were received by this Department.
Fire Resisting Cables (1512)	"HENGTONG" CU/MGT/XLPE/LSZH/SWA/LSZH Fire Resisting Cables / Supplier: Sunrise Green Technology Limited / Model: CU/MGT/XLPE/LSZH/SWA/LSZH / Construction: 2-core, 3 cores & 4 cores copper XLPE insulated steel wire armoured halogen-free low smoke sheathed flamed-retardant Class C, fire-resistant power cable / Cable Size: 1.5mm² to 400mm² / Rated and Tested Voltage: 600V/1000V.	Jiangsu Hengtong Power Cable Co., Ltd	12/8/2024	August 2029	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; c) This assessment is subject to review by August 2029.
Fire Resisting Cables (1525)	"MAS" FR1CXL Single-core Fire Resistant Cables / Supplier: MAS Cables Limited / Model: FR1CXL Single-core Fire Resistant Cable / Construction: Single Core, plain annealed stranded copper conductor, mica/ glass tape with XLPE insulated and LSOH sheathed / Conductor Size: FR1CXL Single-core 1.5mm² to 70mm² / Rated and Tested Voltage: 600/1000V.	Baosheng Science & Technology Innovation Co. Ltd.	11/11/2024		a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body and trademark for identification purpose; c) This assessment is subject to review by August 2029 or with the updating of the edition of the test standards; d) No assessment was made on FR1CXL Single-core with conductor size from 95mm² to 1,000mm² as NO valid test reports were received by this Department.  This letter is issued for amendment on model name as underlined. Our previous letter under the same reference dated 2.8.2024 is herewith superceded by this letter.
Fire Resisting Cables (1531)	"MAS" 694nXFR Armoured Fire Resisting Cables / Model : 694nXFR Fire Resistant Armoured Power Cables (where n runs from 2 to 48) / Construction : Multi-core cable with stranded plain annealed copper conductor, mica/glass tape, XLPE insulation, n-core laid up, extruded LSOH bedding, galvanized steel wire armour and LSOH outer sheath / Conductor Size : 1.5 mm² to $400 \text{mm}^2$ / Rated and Tested Voltage : $600/1000 \text{V}$	Baosheng Science and Technology Innovation Co. Ltd., PRC	05/12/2024	November 2026	a) Valid certificates and test reports shall be maintained; b) The cables shall bear appropriate markings of the certification body for identification purpose; and c) This assessment is subject to review by November 2026.  This letter superseded our previous letter under ref. FP(LC) 317/21 dated 4 May 2022 for the same subject.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
(5) Flexible Connect	tors for Ventilating System				
Flexible Duct Connector (1043)	"Ductflex 280" Flexible Duct Connectors for Ventilation System / Brand : "Ductflex 280" / Material : Reinforced fibre sandwiched between silicon rubber sheets Thickness : 0.4 mm	Guangzhou Jitai Development Co. Ltd., PRC	13/8/2018	July 2023	a) No assessment was made on the density and toxicity of smoke generated by material under fire. b) The packing of the product should bear the Brand Name of the product c) This letter supersedes our previous letter one the same series dated 3.10.2013
Flexible Duct Connector (1044)	"Wolter" Flexible Connectors for Ventilation Fans / Brand : Wolter / Model : CHEMCO EV-1 & CHEMCO EV-2 / Material : For CHEMCO EV-1 Glass fiber with Polymeric PVC coating For CHEMCO EV-2 Glass fiber with Silicone Rubber coating / Density & Thickness : For CHEMCO EV-1 600±10% g/m² & 0.45±0.05 mm thick For CHEMCO EV-2 1925±10% g/m² & 1.35±0.05 mm thick	Dongguan Wolter Chemco Ventilation Ltd	17/8/2018	May 2028	a) No assessment was made on toxicity of smoke generated by the material under fire. b) The packing of the product should bear the Brand Name of the product
Flexible Duct Connector (1060)	PAL® XDF 22/280°C Duct Fabric / Brand Name : "PAL® XDF 22/280°C Duct Fabric" / Material : Black polymeric coated textile-glass material / Nominal Density and Thickness 680 g/m²; 0.5 mm thick / Application : For use as flexible connectors in ventilating and smoke extraction systems Remark: The material shall not be used as smoke extraction ductwork passes through fire compartments.	Phenotherm Asia Ltd., PRC	3/10/2018	March 2024	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment letter supersedes our previous one of the same series dated 13.6.2014.
Flexible Duct Connector (1089)	"Ductflex 300" Flexible Duct Connectors for Ventilation System / Brand : "Ductflex 300" / Material : Reinforced woven fibreglass with stainless steel wire, coated on both sides with fire resistance silicon rubber sheets / Thickness : 1.00 mm - 1.50 mm	Guangzhou Jitai Development Co. Ltd., PRC	4/2/2019	·	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the product should bear the Brand Name of the product c) This letter supersedes our previous letter one the same series dated 5.8.2013. d) This assessment is subject to review by April 2023 with valid test reports according to FSD Circular Letter No. 1/2007 or with the updating of the edition of the test standards.
Flexible Duct Connector (1120)	"Welaire®" Flexible Connector / Brand Name : Welaire® / Model : WFC-TM / Thickness : 0.5 mm / Material : Fiberglass cloth material for flexible connector	Zhongshan Saiver Welaire Air Conditioning Equipment Co., Ltd	8/7/2019	August 2026	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by August 2026 or with the updating of the edition of the test standard.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Flexible Duct Connector (1196)	"COLAN" AF406/FRN Flexible Connector / Model : "AF406/RFN" (Fire Retardant Neoprene) textile fabric / Material : A black glass fibre fabric with nominal thickness of 0.54mm and overall density of 0.8kg/m² approximately, Type E glass fibre and coated on both sides with fire retarded neoprene. Application : For use as flexible connectors in ventilating systems	Colan Products Pty Ltd, Australia	3/7/2020	June 2025	a) No assessment was made on the density and toxicity smoke generated by the material under fire conditions as there are not our requirements. b) The material shall bear the marking "AF406/FRN" as means of identification.
, ,	"COLAN" AF312S2G2G150/SIL Flexible Connector for Ventilating Systems / Model Name: "COLAN AF312S2G150(SIL)" E Glass fibre woven / Material: A glass-fibre fabric woven from satin weave E-glass with silicon rubber on both sides, having a nominal thickness of 0.5 mm and a nominal weight of 560 g/m² in grey colour. / Application: For use as flexible connector in ventilating systems	COLAN Australia	8/9/2020	August 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire as that is not our requirement. b) This assessment letter supersedes our previous one of the same series dated 13.10.2016.
Flexible Duct Connector (1235)	COLAN AF805SIL Glass-Fibre Fabric Flexible Connector / Product Name: "AF805 SIL" glass-fibre fibric / Material: A fiberglass fabric woven (high bulk borosilicate type) with silicon rubber coating on both sides in red colour, having an overall bulk density and a thickness of approximately 998 kg/m³ and 2.3mm respectively. / Application: For external flexible connector in ventilation/smoke extraction systems.	Colan Products Pty Ltd, Australia	23/10/2020	September 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The product shall have label tag(s) bearing the word "AF 805 SIL" sewn on it as a means of identification. c) Valid test reports shall be maintained;
, ,	"COLAN" AF312S2G150/SIL Flexible Connector for use in Smoke Extraction Systems / Product Name: "COLAN AF312S2G150(SIL)" E Glass fibre woven / Material: A fiberglass fabric woven from satin weave with silicone rubber on both sides, having a nominal thickness of 0.5mm and a weight of 560g/m² in grey colour. / Application: For external flexible connector in smoke extraction systems./ High Temperature Aging Test: By The Hong Kong Standards and Testing Centre Ltd. No. HT2100048 of 23.11.2021.	Colan Australia	17/6/2022	August 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment is subject to review by August 2025. c) The material of "COLAN AF312S2G150(SIL)" for use in ventilation systems had been accepted by this Department in letter ref. FP(LC) 316/16 of 8.9.2020.
Flexible Duct Connector (1391)	PAL® XDF 22/280°C Duct Fabric / Brand and Model: "PAL® XDF 22/280°C High Temperature Flexible Duct Connector, Duct Fabric / Material: Black polymeric coated textile-glass material / Nominal Density and Thickness: 680 g/m²; 0.5 mm thick / Application: For use as flexible connectors in ventilating and smoke extraction systems Remark: The material shall not be used as smoke extraction ductwork passes through fire compartments / Quality Assurance: The manufacturer operates a quality management system to ISO 9001: 2015 with Certificate of Registration issued by BSI Quality Management System No. FM 40753 on 16.8.2019.	Phenotherm Asia Limited	15/8/2022	August 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment letter supersedes the previous one of the same series dated 3 October 2018. c) This assessment is subject to review by August 2027 with the valid supporting test report according to the requirement of FSD Circular Letter No. 3/2020.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Flexible Connector (1397)	"COLAN" AF805 SIL Glass-Fibre Fabric Coated with Red Silicon Rubber Flexible Connector for Ventilation/Smoke Extraction Systems / Product Name: COLAN AF805 SIL Glass-fibre fabric coated with Red Silicone Rubber / Material: A glass-fibre fabric woven (high bulk borosilicate type) with silicone rubber on both sides in red colour having a nominal thickness of 2.3mm and a weight of 1952 gsm. Application: For flexible joint connection in ventilation/ smoke extraction systems.	COLAN Products Pty. Ltd., Australia	8/9/2022	,	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The product shall be label tag(s) bearing the word of "AF805 SIL" shown on it as a means of identification. c) Valid test reports shall be maintained. d) This assessment is subject to review by January 2027.
	"COLAN" AF312S2G150/SIL Flexible Connector for use in Smoke Extraction Systems / Product Name: "COLAN AF312S2G150(SIL)" E Glass fibre woven / Material: A fiberglass fabric woven from satin weave with silicone rubber on both sides, having a nominal thickness of 0.5mm and a weight of 560g/m² in grey colour. / Application: For external flexible connector in smoke extraction systems. / High Temperature Aging Test: By The Hong Kong Standards and Testing Centre Ltd. No. <a 16="" 316="" 8.9.2020.<="" accepted="" af312s2g150(sil)"="" been="" by="" colan="" department="" for="" fp(lc)="" had="" href="https://&lt;/td&gt;&lt;td&gt;Colan Australia&lt;/td&gt;&lt;td&gt;1/8/2023&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment is subject to review by August 2025. c) The material of " in="" letter="" of="" ref.="" systems="" td="" this="" use="" ventilation=""></a>				
Flexible Duct Connector (1445)	"Ductflex 280" Class "0" Flexible Duct Connector For Ventilating Systems / Brand Name : "Ductflex 280" / Material : Fire Resistance Silicon Rubber, Reinforced Fibreglass / Thickness : 0.4 mm	GuangZhou Jitai Development Co., Ltd.	8/8/2023	,	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The product surface should bear the Brand Name of the product. c) This letter supersedes our previous letter under reference FP(LC) 316/16 dated 13.8.2018. d) This assessment is subject to review by July 2028.
		GuangZhou Jitai Development Co., Ltd., PRC	2/11/2023		a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) The packing of the product should bear the Brand Name of the product.     c) This assessment is subject to review by October 2028.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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Flexible Duct Connector (1535) "PAL" DF16 Clas		SUPPLIER	DATE	REVIEW (Subject to Renewal)	
	lass material with nominal thickness of 0.4 mm and weight of 550 g/m <sup>2</sup> /	Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	22/1/2025		a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition as that are not our requirements. b) The brand and model name should be marked on the product. c) This assessment letter supersedes our previous letter under ref. FP(LC) 316/16 dated 4.9.2020. d) This assessment is subject to review by December 2029.
111-2 / Construc stacked hat secti steel concealed v (Grade 304 or 31 described in the listed in UL File I recommendation joints to the requ sleeves. / Sizes: Multiple sections sections (for hori section: 200 mm	1 Series Combination Fire and Smoke Dampers / Model : FSD-111-1 and FSD-ction : Channel frame constructed of 1.5 mm galvanized steel with an interlocking	Hong Kong	25/7/2018		a) The dampers shall remain listed in the UL Certifications Directory. b) The fusible link shall remain listed in the UL Certification Directory. c) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. d) The micro switch is solely for monitoring purpose and the installation of micro switch and the associated wiring work shall not impede in any way the complete closure/opening of the damper. e) This letter supersedes our previous letter of the same series dated 10.9.2015 on the same products.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1083)	"Prefco" Multi-blade Fire/Smoke Damper Series 5000 / Product Model: "Prefco" Fire/Smoke Damper Series 5000, Model No. 5050-1, 5050-2, 5053-1 and 5053-2 / Construction: Non-insulated multi-blade damper of galvanized steel construction complete with linkages / Damper actuator is to be housed in a galvanized steel enclosure insulated internally with rockwool of density 100 kg/m³, details are as illustrated in the drawing attached to Report No.: R15C08-1 of 7.5.2015 by Research Engineeing Development Façade Consultant Ltd. / Maximum Size: For single module - 915 mm x 1143 mm (W x H) For multiple modules: Two modules in height and two or more modules in width. The vertical steel plate in each mullion between the modules may be 10, 12 or 14 gauge galvanized steel as detailed in BRE Global Assessment Report No. CC 87874 Review 5 Issue 1 of 12.1.2018. / Actuator: Belimo - FSNF 230US Honeywell - MS4620F1005 / Installation Method: In accordance with the manufacturer's recommendations	Prefco - Johnsontech Air Control Inc., Taiwan	27/12/2018		a) The dampers shall remain listed in the UL Certifications Directory. b) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. c) This letter supersedes our previous one of the same series dated 19.1.2018. d) Separate actuator shall be fitted for each single damper module that makes up a multiple module. e) Valid assessment report on the integrity of multiple module damper assembles to BS 476: Part 20 shall always be made available.
Fire & Smoke Damper (1110)		Ruskin Air Management Ltd., U.K.	28/5/2019		a) No assessment was made on the suitability of the dampers in ventilating system in Protected Areas. b) No assessment was made on cycling test of the dampers for compliance with the UL555S. c) This letter supersedes our previous one of the same series dated 22.05.2017 on the same products. d) This assessment letter is subject to review by December 2023 or with the updating of the edition of the test standard. The next application for assessment shall be supported by valid test report(s) instead of assessment reports according to FSD Circular Letter No. 1/2007.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1111)	Ruskin' FSD60 Fire & Smoke Damper / Type / Model : FSD60 Combined Fire and Smoke Damper / Construction : Details as described and illustrated in "Ruskin FSD60 Catalogue" / Mounting : Vertical and horizontal, in accordance with the manufacturer's recommendation and particular requirement as described in the test reports listed below. Single Section Size : a. Vertical Mounting: 203mm x 152 mm - 813 mm x 1,219 mm (WxH) b. Horizontal Mounting: 203mm x 152 mm - 762 mm x 1,219 mm (WxH) / Multiple Section Size : a. Vertical Mounting : Maximum 2,337 mm x 2,337 mm (WxH) b. Horizontal Mounting Maximum 2,286 mm x 2,337 mm (WxH) / Actuator : For ventilation system, solo used for maintaining integrity of fire compartment: "Belimo" FSAF230A(-S), FSAF230(-S), FSLF230(-S), FSNF230(-S), FSNF230(-S), FSAF24-SR "Honeywell" MS4620F(1005/1203), MS4609F(1010/1210), MS4604F(1010/1210) For smoke extraction system:    Actuator Brand	Ruskin Co. Thailand	28.05.2019	, ,	a) The dampers shall remain listed in the UL Certification Directory b)The damper shall bear the trade mark and production label with company name and model number attached firmly on the damper. c) When the damper is used solely for maintaining the integrity of fire compartment, it shall be fitted with "Ruskin" EFL 155 Resettable Electric Fuse Link, which shall be approved by this department and designed to operate up to a temperature not exceeding 69°C d) This letter is subject to review by February 2027 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1113)	"Prefco" Multi-blade Fire/Smoke Damper Series 5000 / Product Model: "Prefco" Fire/Smoke Damper Series 5000, Model No. 5050-1, 5050-2, 5053-1 and 5053-2 / Construction: Non-insulated multi-blade damper of galvanized steel construction complete with linkages / Damper actuator is to be housed in a galvanized steel enclosure insulated internally with rockwool of density 100 kg/m³, details are as illustrated in the drawing attached to Report No.: R15C08-1 of 7.5.2015 by Research Engineering Development Facade Consultants Ltd. / Maximum Size: For single module - 915 mm x 1143 mm (W x H) For multiple modules: Two modules in height and two or more modules in width. The vertical steel plate in each mullion between the modules may be 10, 12 or 14 gauge galvanised steel as detailed in the BRE Global Assessment Report No. CC 87874 Review 5 Issue 1 of 12.1.2018. / Actuator: Belimo - FSNF 230US Honeywell - MS4620F1005 / Installation Method: In accordance with the manufacturer's recommendations	Prefco - Johnsontech Air Control Inc., Taiwan	29/5/2019		a) The dampers shall remain listed in the UL Certifications Directory. b) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed introsition for the identification of brand name and model. c) This letter supersedes our previous one of the same series dated 27.12.2018. d) Separate actuator shall be fitted for each single damper module that makes up a multiple module. e) Valid assessment report on the integrity of multiple module damper assembles to BS 476: Part 20 shall always be made available.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1118)	Ruskin' FSD60 Fire & Smoke Damper / Type / Model : FSD60 Combined Fire and Smoke Damper / Construction : Details as described and illustrated in "Ruskin FSD60 Catalogue" / Mounting : Vertical and horizontal, in accordance with the manufacturer's recommendation and particular requirement as described in the test reports listed below. / Single Section Size : a. Vertical Mounting: 203mm x 152 mm - 813 mm x 1,219 mm (WxH) b. Horizontal Mounting: 203mm x 152 mm - 762 mm x 1,219 mm (WxH) / Multiple Section Size : a. Vertical Mounting : Maximum 2,337 mm x 2,337 mm (WxH) b. Horizontal Mounting: Maximum 2,286 mm x 2,337 mm (WxH) / Actuator : For ventilation system, solo used for maintaining integrity of fire compartment: "Belimo" FSAF230A(-S), FSLF230(-S), FSNF230(-S), FSTF230(-S), FSAF24-SR / "Honeywell" MS4620F(1005/1203), MS4609F(1010/1210), MS4604F(1010/1210)  For smoke extraction system:  Actuator Brand Model Max. Driving Area (sq. ft)  FSAF230A(-S) 14.2  FSLF230 4  FSNF230(-S) 8  Honeywell MS4620F(1005/1203) 14.2  MS4609F1010 8  Remark: For smoke extraction system, actuator shall be enclosed by thermal protection box of 8" wide by 14.25" high by 6.5 " deep, constructed by G.M.S. sheet with 8lb/ft³ Fibrefrax insulation infill materials.	Ruskin Co. Thailand	18/6/2019	February 2027	a) The dampers shall remain listed in the UL Certification Directory. b) The Damper shall either bear the trade mark and production label with company name and model number attached firmly on the damper or provided with a certificate of origin issued by the manufacturing plant showing the model number and plant order number c) When the damper is used solely for maintaining the integrity of the compartment, it shall be fitted with "Ruskin" EFL 155 Resettable Electric Fuse Link, which shall be approved by this department and designed to operate up to a temperature not exceeding 69 °C d) This letter supersedes our previous one of the same series dated 28.5.2019. e) This letter is subject to review by February 2027 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1143)	"TROX" SFD, SFP and SFE Series Fire & Smoke Dampers / Model: SFD, SFP and SFE Series / Construction: a) SFD Series Assemblies is of galvanised mild steel construction, with 1.5 mm thick sleeve, 1.5 mm thick blades for vertical mounting and 2 mm thick for horizontal mounting, springs and catch plates as described in the test reports. The frame is made up of top hat sections welded together. A linkage system enables all blades to move and lock together when in the closed position. b) SFP Series Same as SFD series, but with the blades, spindles and blade to spindles fixings in Grade 304, 316, 316L or 430 stainless steel. c) SFE Series Same as SFD series, but with the sleeve & frame, blades, blade spindles and blade to spindle fixing and linkage of Grade 304, 316, 316L or 430 stainless steel. / Mounting: Vertical and horizontal, in accordance with the manufacturer's recommendations and particular requirements as described in the test and assessment reports listed below. / Duct Connections: For ventilating systems, breakaway joints to the requirements of UL 555 should be provided for ductwork connected to fire damper sleeves. If there are ductwork connections on both sides of the damper, breakaway joints should be provided on both sides except for the ductwork that are constructed of fire resisting materials or installed inside a fire rated shaft / pipe duct. / Sizes: Maximum 1000 mm x 1000 mm (W x H) / Actuator: 1. "Belimo" FSNF 230-S US (for max. damper size of 1000mm x 650mm) 2. "Belimo" FSAF-230A-S (for max. damper size of 1000mm x 1000mm) 3. "Belimo" FSLF 230-S US (for max. damper size of 1000mm x 500mm) Remark: For smoke control systems involving or exposed to high temperature operation, actuator shall be enclosed by TROX TE01 thermal enclosure.	TROX Malaysia Sdn. Bhd., Malaysia	16/10/2019	September 2026	a) The dampers and thermal enclosures shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. b) This letter supersedes our previous one of the same reference dated 20.11.2017 on "Trox" SFD, SFP and SFE Series fire and smoke dampers.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1147)	"TROX" Series FSD, FSP and FSE Fire Shutter Dampers / Type/Model: a) FSD series b) FSP series c) FSE series / Construction: a) FSD series - Fire damper assemblies of galvanised mild steel construction using a curtain type arrangement b) FSP series - Fire damper assemblies similar to FSD series, but with blades constructed from stainless steel Grade 430 c) FSE series - Fire damper assemblies similar to FSD series with the catch plates and the case being constructed from stainless steel Grade 304L / Maximum Size: Single Module: Maximum size up to 1,000 mm (W) x 1,000 mm (H) Multiple Modules: Maximum size up to 8,000 mm (W) x 3,000 mm (H) for FSD series on vertical mounting only as detailed in the Assessment Report No. FAR3494 of 10.11.2010. / Installation Method: Single damper, vertically or horizontally mounted in accordance with the manufacturer's recommendations. Breakaway joints should be provided in accordance with the requirements of UL555 in the ductwork connected to the damper. For there are ductwork connections on both sides of the damper, breakaway joints should be provided on both sides except for the ductwork that are constructed of fire rated materials or installed inside a fire rated shaft/ pipe duct.	TROX (Malaysia) Sdn. Bhd., Malaysia	8/11/2019	May 2024	a) The dampers are to be fitted with fusible link release of a type approved by this department with a rating not exceeding 69°C. b) This letter supersedes our previous one of the same series dated 20.7.2015 on the same products.
Fire & Smoke Damper (1149)	"TROX" JFM Fire & Smoke Dampers for Ventilating and Smoke Control System / Model: "JFM-G", "JFM-E" and "JFM-E2" multi-blade fire and smoke dampers with vertical and horizontal mounting models / Construction: Multi-blade stainless steel or mild steel un-insulated blades fitted in a mild steel or stainless steel channel section frame suitable for horizontal or vertical attitude with airflow in either direction. Details of construction are shown in the Fire Test/Assessment Reports listed below. / Size: Single Module: Maximum size up to 2,200mm (W) x 2,500mm (H) / Multiple Modules: Maximum size up to 4,550 mm (W) x 2,500 mm (H) (2 x 1 modules) with construction details in accordance with the manufacturer's drawings of the Assessment Report no.: 129103(Issue 12) of 31.1.2013. / Mounting: Vertical and horizontal mounting / Installation Method: In accordance with the manufacturer's recommendations and manufacturer's drawings / Actuator: In accordance with Assessment Report No. 159143 (Issue 8) of 30.4.2019 and Assessment Report No. 129103 (Issue 12) of 31.1.2013, the selection of actuators for the dampers of different sizes shall base on a damper torque factor of 26Nm/m². a) "Rotor" RC200 series pneumatic actuators / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) Application: 250°C for 2 hours or 400°C for 1 hour b) "Hytrok" XL1126 S80 pneumatic actuator / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours d) "Rotork" RCE series electric actuators complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours d) "Rotork" RCE series electric actuators complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours e) "Rotork" RCE series electric actuators complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours e) "Rotork" RCEL019 electric actuator complete with "BETA" thermal jacket / Maximum Damper Size: 1,500mm(W) x 1,500mm(H) / A		8/11/2019	February 2025	The dampers, actuators and thermal enclosures shall be permanently marked or stamped with labels which shall remain visible after fixed into positions for the identification of brand name and model. 2. This letter supersedes our previous one of the same reference dated 17.10.2017. 3. This assessment letter is subject to review by Feb 2025. 4. Some test reports for Fire Test and Temperature Degradation Test by Warrington Fire Research Centre are over 10 years. According to FSD Circular letter No. 1/2007, test reports of an accredited laboratory should not be over 10 years. It is to remind that appropriate valid test reports fulfilling the above requirement instead of assessment reports should be submitted to support the next assessment.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1168)	"TROX" JFM Fire & Smoke Dampers for Ventilating and Smoke Control System / Model: "JFM-G", "JFM-E" and "JFM-E2" multi-blade fire and smoke dampers with vertical and horizontal mounting models / Construction: Multi-blade stainless steel or mild steel un-insulated blades fitted in a mild steel or stainless steel channel section frame suitable for horizontal or vertical attitude with airflow in either direction. Details of construction are shown in the Fire Test/Assessment Reports listed below. / Size: Single Module: Maximum size up to 2,200mm (W) x 2,500mm (H) / Multiple Modules: Maximum size up to 4,550 mm (W) x 2,500 mm (H) (2 x 1 modules) with construction details in accordance with the manufacturer's drawings of the Assessment Report no.: 129103(Issue 12) of 31.1.2013. / Mounting: Vertical an horizontal mounting / Installation Method: In accordance with the manufacturer's recommendations and manufacturer's drawings / Actuator: In accordance with Assessment Report No. 159143 (Issue 9) of 14.5.2019 and Assessment Report No. 129103 (Issue 15) of 14.5.2019, the selection of actuators for the dampers of different sizes shall base on a damper torque factor of 26Nm/m². a) "Rotor" RC200 series pneumatic actuators / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) Application: 250°C for 2 hours or 400°C for 1 hour b) "Hytork" XL1126 S80 pneumatic actuator / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours c) "Dresser" RCS Sure 100 and 150 series electric actuator complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours e) "Rotork" RCE series electric actuators complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours e) "Rotork" RCEL series electric actuator complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm(W) x 2,500mm(H) / Application: 250°C for 2 hours e) "Rotork" RCEL series electric actuator complete with "BETA" thermal jacket / Maximum Damper Size: 4,550mm		20/2/2020		The dampers, actuators and thermal enclosures shall be permanently marked or stamped with labels which shall remain visible after fixed into positions for the identification of brand name and model. 2. This letter supersedes our previous one of the same reference dated 8.11.2019. 3. This assessment letter is subject to review by Feb 2025. 4. Some test reports for Fire Test and Temperature Degradation Test by Warrington Fire Research Centre are over 10 years. According to FSD Circular letter No. 1/2007, test reports of an accredited laboratory should not over 10 years. It is remind that appropriate valid test reports fulfilling the above requirement instead of assessment reports should be submitted to support the next assessment.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1192)	"TANDA" TFD Series Curtain Type Fire Damper / Model: a) TFD-100 b) TFD-100F c) TFD-200 / Construction: a) TFD-100 series - curtain type completed with integral sleeve; the frame is made of four pieces of steel sheet joined at the corners by riveted overlaps. This is fitted centrally inside a duct and fastened together by rivets. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel, galvanized steel frame with stainless steel curtain or stainless steel frame with galvanized steel curtain construction. The stainless steel can be of Grade 304 or 316. b) TFD-100F series - curtain type completed with integral sleeve; the frame is made of four pieces of folded galvanized steel which were fixed together with interlocking tabs. This is fitted centrally inside a duct and fastened together by rivets. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel frame with galvanized steel curtain construction. The stainless steel can be of Grade 304 or 316. c) TFD-200 series - curtain type with frame formed from C-section steel. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel, full stainless steel, galvanized steel frame with stainless steel curtain or stainless steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel frame with galvanized steel curtain construction. The stainless steel can be of Grade 304 or 316. d) Details of construction shall be as described in the test/assessment reports. / Maximum Sizes: a) TFD-100 series: i) Single section: 1100 mm (W) x 1200 mm (H) maximum b) TFD-100F series: i) Single section: 200 mm (W) x 2000 mm (H) maximum / Micro Switch: c) TFD-20	TANDA International Company Ltd, Hong Kong	4/6/2020	March 2025	a) A label to indicate the manufacturer, model, standards and fire resistant rating achieved should be fixed to the damper. by The fusible link shall remain listed in the UL Certification Directory and approved by this Department. c) The micro switch is solely for monitoring purpose and the installation of micro switch and the associated wiring work shall not impede in any way the complete closure/opening of the damper. d) This letter supersedes our previous one of the same series dated 15.4.2016 on the same products. e) Test reports No. R11E08 Issue 1 of 2.6.2011 by RED and FR 3400 Issue 1 of 19.3.2005 by BRANZ are over 10 years. According to FSD Circular letter No. 1/2007, test reports of an accredited laboratory should not be over 10 years. It is to remind that appropriate valid test reports fulfilling the above requirement instead of assessment reports should be submitted to support the next assessment.
Fire & Smoke Damper (1227)	"Ruskin" TFD30 Fire and Smoke Damper / Model : TFD30 Fire and Smoke Damper / Construction : Damper frame constructed of 2 mm galvanized steel or stainless steel. Double skin aerofoil blade with minimum 2mm blade skin thickness / Mounting : Vertical and horizontal as listed in SGS Test Reports Nos. AJFS2003001832FF and AJFS2003001833FF dated 17.7.2020, installed accordance with manufacturer's recommendations and as per the relevant description in the Test Report. Breakaway joints to the requirements of UL should be provided. / Maximum Size : a) Single section: 1000mm x 1000mm (W x H); b) Multiple sections: 2200mm x 2200mm (W x H) / Actuator : Honeywell MS4602F (1005/1203) and thermal enclosure (for smoke extraction system) with 180mm x 364mm x 205mm, galvanized enclosure, lined with 8 lb/ft <sup>3</sup> density Fibrefrax insulation. / Limit Switch : Ruskin RLS2502 (external)	Ruskin Co., Thailand	15/9/2020	August 2025	a) The damper and actuator shall remain listed in the UL Certification Directory. b) The damper shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for identification of brand name and model. c) The limit switch is solely for monitoring purpose and the installation of limit switch and the associated wiring work shall be impede in any way the complete closure/opening of the damper. d) This assessment is subject to review by Aug 2025. e) This letter supersedes our previuos letter dated 7 September 2020.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1315)	"TROX" SFD, SFP and SFE Series Fire & Smoke Dampers / Model: SFD, SFP and SFE Series / Construction: a) SFD Series Assemblies is of galvanised mild steel construction, with 1.5 mm thick sleeve, 1.5 mm thick blades for vertical / horizontal mounting, springs and catch plates as described in the test reports. The frame is made up of top hat sections welded together. A linkage system enables all blades to move and lock together when in the closed position. b) SFP Series Same as SFD series, but with the blades, spindles and blade to spindle fixings in Grade 304,316, 316L or 430 stainless steel. c) SFE Series Same as SFD series, but with the sleeve & frame, blades, blade spindles and blade to spindle fixing and linkage of Grade 304, 316, 316L or 430 stainless steel. / Mounting: Vertical and horizontal, in accordance with the manufacturer's recommendations and particular requirements as described in the test and assessment reports listed below. / Duct Connections: For ventilating systems, breakaway joints to the requirements of UL 555 should be provided for ductwork connected to fire damper sleeves. If there are ductwork connections on both sides of damper, breakaway joints should be provided on both sides except for the ductwork that are constructed of fire resisting materials or installed inside a fire rated shaft / pipe duct. / Size: Maximum 1000 mm x 1000 mm (W x H) per module / Actuator: 1. "Belimo" FSNF 230-S US for operating single module [for max. damper dimension of 1000mm(W) x 650mm(H) or max. damper area as determined by the tested torque factor with not less than 15Nm/m²¹ 2. "Belimo" FSLF 230-S US [for max. damper area as determined by the tested torque factor with not less than 15Nm/m²¹ 3. "Belimo" FSLF 230-S US [for max. damper size of 1000mm(W) x 300mm(H) or max. damper area as determined by the tested torque factor with not less than 15Nm/m²¹ 4. Remark: For smoke control systems involving or exposed to high temperature operation, actuator shall be enclosed by TROX TE01 thermal enclosure.	TROX Malaysia Sdn. Bhd., Malaysia	27/8/2021	June 2026	a) The dampers and thermal enclosures shall be permanently marked or stamped with label(S) which shall remain visible after fixed into position for the identification of brand name and model. b) This letter supersedes dated 16.10.2019 on "Trox" SFD, SFP and SFE Series fire and smoke dampers.
Fire & Smoke Damper (1321)	"Ruskin" IBD Curtain Type Fire Damper (4 Hours Fire Rating) / Model: a) Ruskin IBD Style Ablades housed inside airstream b) Ruskin IBD Style B- blades housed outside airstream / Construction: A curtain damper formed by interlocking galvanized mild steel/ stainless (Grade 304 or 316) blades mounted in a galvanized mild steel/ stainless steel (Grade 304 or 316) frame held in open position by fusible link; closure of damper is by stainless steel springs / Mounting: Vertical and Horizontal / Maximum Sizes: Vertical single: 1200mm x 1100mm (W x H) 900mm x 1800mm (W x H) / Maximum Multiple Assembly Size: Horizontal multiple: 2800mm x 1200mm (W x H); 2725mm x 1200mm (W x H) / Installation Method: In accordance with the manufacturer's recommendations details in the test reports / Breakaway Joints: Breakaway joints should be provided in the ductwork connected to the damper in accordance with the requirements of UL 555		18/10/2021	September 2026	a) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. Your product catalogue should be revised for updating information of maximum sizes of your products. b) The fusible link used with the damper shall be a type approved by the director of Fire Services and with a rating not exceeding 69°C

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1323)	"TROX" SFD , SFP and SFE Series Fire & Smoke Dampers / Model : SFD, SFP and SFE Series / Construction : a) SFD Series Assemblies is of galvanised mild steel construction, with 1.5 mm thick case, 1.5 mm thick blades for vertical / horizontal mounting, springs and catch plates as described in the test reports. The frame is made up of top hat sections welded together. A linkage system enables all blades to move and lock together when in the closed position. b) SFP Series Same as SFD series, but with the blades, spindles and blade to spindle fixings in Grade 304, 316, 316L or 430 stainless steel. c) SFE Series Same as SFD series, but with the sleeve & frame, blades, blade spindles and blade to spindle fixing and linkage of Grade 304, 316, 316L or 430 stainless steel. / Mounting : Vertical and horizontal, in accordance with the manufacturer's recommendations and particular requirements as described in the test and assessment reports listed below. / Duct Connections : For ventilating systems, breakaway joints to the requirements of UL 555 should be provided for ductwork connected to fire damper sleeves. If there are ductwork connections on both sides of the damper, breakaway joints should be provided on both sides except for the ductwork that are constructed of fire resisting materials or installed inside a fire rated shaft / pipe duct. / Sizes : Maximum 1000 mm x 1000 mm (W x H) per module / Actuator : 1. "Belimo" FSNF 230-S US for operating single module [for max. damper dimension of 1000mm(W) x 650mm(H) or max. damper area as determined by the tested torque factor with not less than 7.9Nm/m²] 2. "Belimo" FSAF 230-S US / FSAF 230A-S for operating max. two module [for max. damper size of 1000mm(W) x 300mm(H) or max. damper area as determined by the tested torque factor with not less than 15Nm/m²] 3. "Belimo" FSLF 230-S US [for max. damper size of 1000mm(W) x 300mm(H) or max. damper area as determined by the tested torque factor with not less than 15Nm/m²] 3. "Belimo" FSLF 230-S US [for max. damper size of 1000mm(W)		4/11/2021	June 2026	a) The dampers and thermal enclosures shall be permanently marked or stamped with labels(s) which shall remain visible after fixed into position for the identification of brand name and model. b) This letter supersedes our previous one of the same reference dated 27.8.2021 on "Trox" SFD, SFP and SFE Series fire and smoke dampers.
Fire & Smoke Damper (1329)	"Ruskin" IBD Curtain Type Fire Damper (2 Hours Fire Rating) / Model: a)Ruskin IBD Style Ablades housed inside airstream b)Ruskin IBD Style B-blades housed outside airstream / Construction: A curtain damper formed by interlocking galvanized mild steel/ stainless steel (Grade 304 or 316) blades mounted in a galvanized mild steel/ stainless steel (Grade 304 or 316) frame held in open position by fusible link; closure of damper is by stainless steel springs / Mounting: Vertical and Horizontal / Maximum Sizes: Vertical and Horizontal / Maximum Sizes: Vertical single: 1300mm x 1300mm (W x H); Horizontal single: 900mm x 1200mm (W x H) / Installation Method: In accordance with the manufacturer's recommendations detail in the assessment report no. IA20-136 Version 1 of 31.7.2020 and IA21-058 Version 1 of 13.5.2021 / Breakaway Joints: Breakaway joints should be provided in the ductwork connected to the damper in accordance with the requirements of UL 555 / Assessment Report: By Forte Testing and Consultants Co. Ltd: a) Assessment Report no. IA21-058 Version 1 of 13.5.2021	Delta Pyramax Co. Ltd	18/11/2021	November 2026	a) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. Your product catalogue should be revised for updating information of maximum sizes of your products. b) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER /	FSD	DATE TO	Remarks
		AUTHORIZED	ACCEPTANCE	REVIEW (Subject	
		SUPPLIER	DATE	to Renewal)	
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Fire Damper (1331)	"TANDA" TFD Series Curtain Type Fire Damper / Model: a) TFD-100 b) TFD-100F c) TFD-200 / Construction: a) TFD-100 series - curtain type completed with integral sleeve; the frame is made of four pieces of steel sheet joined at the corners by riveted overlaps. This is fitted centrally inside a duct and fastened together by rivets. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel, galvanized steel frame with stainless steel curtain or stianless steel frame with galvanized steel curtain construction. The stainless steel can be of Grade 304 or 316. b) TFD-100F series - curtain type completed with integral sleeve; the frame is made of four pieces of folded galvanized steel which were fixed together with interlocking tabs. This is fitted centrally inside a duct and fastened together by rivets. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel, galvanized steel frame with stainless steel curtain or stainless steel frame with galvanized steel curtain construction. The stainless steel can be of Grade 304 or 316. c) TFD-200 series - curtain type with frame formed from C-section steel. The curtain comprises interlinked slats with the top one riveted to the frame. The damper can be of full galvanized steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel, full stainless steel galvanized steel frame with stainless steel curtain or stainless steel frame with galvanized steel curtain construction. The stainless steel can be of grade 304 or 316. d) Details of construction shall be as described in the test/ assessment reports. / Maximum Sizes: a) TFD-100 series: i) Single Section: 100 mm (W) x 1200 mm (H) maximum b) TFD-100F series: i) Single section: 100 mm (W) x 2000 mm (H) maximum c) TFD-100F series: i) Si	Ltd, Hong Kong	2/12/2021		a) A label to indicate the manufacturer, model, standards and fire resistant rating achieved should be fixed to the damper. b) The fusible link shall remain listed in the UL Certification Directory and approved by this Department. (c) The micro switch is solely for monitoring purpose and the installation of micro switch and the associated wiring work shall not impede in any way the complete closure/opening of the damper. d) Test reports No. R11E08 Issue 1 of 2.6.2011 by RED and FR 3400 Issue 1 of 19.3.2005 by BRANZ are over 5 years. According to FSD Circular letter No. 3/2020, test reports of an accredited laboratory should not be over 5 years. It is to remind that appropriate valid test reports fulfilling the above requirement instead of assessment reports should be submitted to support the next assessment.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Damper (1348)	"LASER" 9021 Series Curtain Type Fire Damper / Model 9021 Series (9021G/ 9021S/ 9021SS) / Construction: The damper comprises interlinked galvanized steel / stainless steel damper slats housed in galvanized steel / stainless steel frames with spring loaded housing. The stainless steel can be of Grade 304 or 316. The thickness of the steel, the clearance between the slats ends and the frame and other details shall be as described in the BRANZ reports listed below. / Mounting: Vertical and Horizontal / Sizes: Single Module 150mm(W) x 150mm (H) - 900mm(W) x 900mm (H) (vertical / horizontal) Multiple Damper Configuration (Maximum) Vertical: 3732mm(W) x 2788mm(H) (4x3 modules) Horizontal: 3732 (W) x 1844mm (H) (4x2 modules) / Installation Method: In accordance with the manufacturer's recommendations detail in the test reports / Breakaway Joints: Breakaway joints should be provided in the ductwork connected to the fire damper sleeves in accordance with the requirements of UL 555	Laser Resources (Asia) Co. Ltd	9/2/2022	February 2027	<ul> <li>a) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type.</li> <li>b) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C. c) This letter is subject to review by February 2027.</li> </ul>
Fire Damper (1349)	"Ruskin" TFD30 Fire and Smoke Damper / Model : TFD30 Fire and Smoke Damper / Construction : Damper frame constructed of 2mm galvanized steel or stainless steel. Double skin aerofoil blade with minimum 2mm blade skin thickness / Mounting : Vertical and horizontal as listed in SGS Test Reports Nos. AJFS2003001832F AND AJFS2003001833FF dated 17.7.2020, installed accordance with manufacturer's recommendations and as per the relevant description in the Test Report. Breakaway joints to the requirements of UL should be provided. / Maximum Size : a) Single section: 1000mm x 1000mm (W x H); b) Multiple sections: 2200mm x 2200mm (W x H) / Actuator : Honeywell MS4620F(1005/1203) and thermal enclosure (for smoke extraction system) with 180mm x 364mm x 205mm, galvanized enclosure, lined with 8 lb/ft <sup>3</sup> density Fibrefrax insulation. / Limit Switch : Ruskin RLS2502 (external)	Ruskin Co., Thailand	28/3/2022	August 2025	a) The damper and actuator shall remain listed in the UL Certification Directory. b) The damper shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for identification of brand name and model. c) The limit switch is solely for monitoring purpose and the installation of limit switch and the associated wiring work shall be impede in any way the complete closure/opening of the damper. d) This assessment is subject to review by Aug 2025.
Fire & Smoke Damper (1361)	"LASER" 9010 Series Combined Fire and Smoke Damper / Model: 9010 G — G.I. frame and blade (vertical and horizontal mounting) 9010 S — G.I. frame and stainless steel blade (vertical and horizontal mounting) / Construction: 9010G comprises G.I. frame with G.I. blades. 9010S comprises G.I. frame with SS304 / SS 316 blades. The thickness of the steel, the clearance between the blades ends and the frame and other details shall be as described in the test reports listed below. / Sizes: 200 x 200mm to 900 x 900mm for each module Maximum size up to: Vertical- 3732mm (W) x 1844mm(H) (4x2 modules) Horizontal- 2788mm (W) x 1844mm (H) (3x2 modules) / Mounting Details: a) Vertical and Horizontal Mounting b) Breakaway joints should be in accordance with the requirements of UL 555 c) Other details shall be as details in test / assessment reports listed below / Actuators: a) For damper module with size up to 600x600mm: - Honeywell Model: MS4609F1210 - Gruner AG Model: UL360S-230-090-S2 / UL360S-024-090-S2 b) For damper module with size up to 900x900mm - Honeywell Model: MS4620F1203 - Gruner AG Model: UL360S-230-135-S2 / UL360S-024-135-S2	Laser Resources (Asia) Co. Ltd	28/4/2022	April 2027	a) The dampers shall remain listed in the UL Certifications Directory. b) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. c) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C d) This letter is subject to review by April 2027 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1363)	"Ruskin" DIBD2 Series Curtain Type Dynamic Fire Damper / Model : DIBD2 Series Curtain Type Dynamic Fire Damper / Construction : Frame and Blades made of galvanized steel or stainless steel. Closure of damper is by stainless steel springs. / Mounting : Vertical and Horizontal / Maximum Single Section Sizes : Vertical - 838mm x 914mm (WxH) Horizontal - 610mm x 610mm (WxH) Multiple section: Vertical- 3732mm (W) x 1844mm(H) (4x2 modules) Horizontal- 2788mm (W) x 1844mm (H) (3x2 modules) / Maximum Multiple Section Sizes : Vertical - 1219mm x 1829mm (WxH) 1829mm x 1219mm (WxH) 2600mm x 610mm (WxH) Horizontal - 914mm x 1219mm (WxH) 1219mm x 914mm(WxH) / Installation Method and Breakaway joints : In accordance with the manufacturer's recommendations instructions	Ruskin (Thailand) Co. Ltd	20/5/2022		a) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. b) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C c) This letter is subject to review by April 2027 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1382)		Lloyd Industries Inc., USA / Lloyd Asia Company Ltd, Hong Kong	22/6/2022		a) The dampers shall remain listed in the UL Certifications Directory. b) The fusible link shall remain listed in the UL Certifications Directory. c) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. d) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. e) This assessment is subject to review by July 2027 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1392)	"Ruskin" DIBD2 Series Curtain Type Dynamic Fire Damper / Model : DIBD2 Series Curtain Type Dynamic Fire Damper / Construction : Frame and Blades made of galvanized steel or stainless steel. Closure of damper is by stainless steel springs. / Mounting : Vertical and Horizontal / Maximum Single Section Sizes : Vertical - 838mm x 914mm (WxH) Horizontal - 610mm x 610mm (WxH) Maximum Multiple Section Sizes : Vertical - 1219mm x 1829mm(WxH) 1829mm x 1219mm (WxH) 2600mm x 610mm (WxH) Horizontal - 914mm x 1219mm (WxH) 1219mm x 914mm (WxH) / Installation Method and Breakaway joints : In accordance with the manufacturer's recommendations instructions	,	16/8/2022		a) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. b) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C c) This letter is subject to review by April 2027 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED	FSD ACCEPTANCE	DATE TO REVIEW (Subject	Remarks
		SUPPLIER	DATE	to Renewal)	
Fire & Smoke Damper (1409)	"TROX" JFM Fire and Smoke Dampers with Actuators ("Dresser" RCS Sure-100 and Sure-150 series, "Rotork" RC200, RCE and RCEL series, "Hytork" XL1126 S80 ) / Model: "JFM-G", "JFM-E" and "JFM-E2" multi-blade fire and smoke dampers with vertical and horizontal mounting models / Construction: Multi-blade stainless steel or mild steel un-insulated blades fitted in a mild steel or stainless steel channel section frame suitable for horizontal or vertical attitude with airflow in either direction. Details of construction are shown in the Fire Test/ Assessment Reports listed below. / Size: Single Module: Maximum size up to 2,200mm (W) x 2,500mm (H) Multiple Modules: Maximum size up to 4,550 mm (W) x 2,500 mm (H) (2 x 1 modules) with construction details in accordance with the manufacturer's drawings of the Assessment Report no.: 129103(Issue 12) of 31.1.2013. / Mounting: Vertical and horizontal mounting / Installation Method: In accordance with the manufacturer's recommendations and manufacturer's drawings / Actuator: Operation at high temperature based on the following reports: By Warrington Fire Research Centre Assessment Report No. 159143 (Issue 9) of 12.11.2006 Assessment Report No. 129103 (Issue 15) of 13.12.2002, By SIRIM QAS International Sdn. Bhd Test Report no. 2022FE0367 of 12.5.2022 Test Report no. J20131440134/SQAS/FPS/15/1-3 (2013FE257) of 6.8.2013 Selection of actuators for the dampers shall base on a damper torque factor of 26Nm/m². "Rotork" RC200 series pneumatic actuators  Maximum Damper Size: 4,550mm(W) x 2500mm(H) Application: 250°C for 2 hours; 400°C for 1 hour "Hytork" XL1126 S80 pneumatic actuator Maximum Damper Size: 4,550mm(W) x 2,500mm(H) Application: 250°C for 2 hours "Dresser" RCS Sure 100 and 150 series electric actuator Maximum Damper Size: 4,550mm(W) x 2,500mm(H) Application: 250°C for 2 hours "Rotork" RCEL series electric actuator completed with "BETA" thermal jacket Maximum Damper Size: 4,550mm(W) x 2,500mm(H) Application: 250°C for 2 hours "Schischek" InMax 60-SF electric actuator complete		21/12/2022		1. The dampers, actuators and thermal enclosures shall be permanently marked or stamped with labels which shall remain visible after fixed into positions for the identification of brand name and model.  2. The dampers applied to ventilating system where it passes through any compartment floor, wall or ceiling should be operated by fusible link a type of approved by FSD.  3. This letter supersedes our previous letter of the same reference dated 20.2.2020.  4. This assessment letter is subject to review by Feb 2025.  5. Some test reports for Fire Test and Temperature Degradation Test by Warrington Fire Research Centre are over 10 years. According to FSD Circular letter No. 3/2020, the application submission shall include test report which has been issued within the past 5 years and is valid at the time of submission for your application. It is reminded that appropriate valid test reports fulfilling the above requirement instead of assessment reports should be submitted to support the your next application for product acceptance assessment.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1419)	Ruskin Model "TFD80" Tunnel Ventilation Fire and Smoke Damper / Country of Original: Thailand / Model: TFD80 Tunnel Ventilation Fire and Smoke Damper / Construction: Channel frame constructed of Type 304 / Type 316 stainless steel / Galvanized steel of 3.0mm thick with stainless steel bearing fitted into frame. Damper blades are double-skin construction of Type 304 / Type 316 stainless steel /Galvanized steel of 2.0mm thick with interlocking blade to blade design. Axle is Type 304 / Type 316 stainless steel / Galvanized steel in full length. / Mounting: Vertical and horizontal / Size: Max. 3,400mm x 2,148 mm (WxH) / Actuator: a) "Ruskin" EOM3-O-dA-K2/29sec or EOM4-O-dA-K2/29sec electric actuator encased in 1.0 mm thick stainless grade 304 box with thermal insulation of density 128 kg/m³. Installation Method: In accordance with the manufacturer's instructions	Ruskin (Thailand) Co., Ltd.	26/1/2023	,	a) The dampers shall be permanently marked or stamped with label(s) which remain visible after fixed into position for identification of brand name and model.     b) This assessment is subject to review by Jan 2028 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1420)	"LASER" 9010 Series Combined Fire and Smoke Damper / Model: 9010 G — G.I. frame and blade (vertical and horizontal mounting) 9010 S — G.I. frame and stainless steel blade (vertical and horizontal mounting) / Construction: 9010G comprises G.I. frame with G.I. blades. 9010S comprises G.I. frame with S3304 / SS 316 blades. The thickness of the steel, the clearance between the blades ends and the frame and other details shall be as described in the test reports listed below. / Sizes: 200 x 200mm to 900 x 900mm for each module Maximum size up to: Vertical- 3732mm (W) x 1844mm(H) (4x2 modules) Horizontal- 2788mm (W) x 1844mm (H) (3x2 modules) / Mounting Details: a) Vertical and Horizontal Mounting b) Breakaway joints should be in accordance with the requirements of UL 555 c) Other details shall be as details in test / assessment reports listed below / Actuators: a) For damper module with size up to 600x600mm: - Honeywell Model: MS4609F1210 —Gruner AG Model: UL360S-230-090-S2 / UL360S-024-090-S2 b) For damper module with size up to 900x900mm - Honeywell Model: MS4620F1203 - Gruner AG Model: UL360S-230-135-S2 / UL360S-024-135-S2	Laser Resources (Asia) Co. Ltd	30/1/2023		a) The dampers shall remain listed in the UL Certifications Directory. b) A durable mark or label shall be provided at the fire damper to indicate its manufacturer's name, model and type. c) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C d) This letter supersedes our previous letter of the same reference dated 28.4.2022. e) This letter is subject to review by April 2027 or with the updating of the edition of the test standard.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1427)	"Lloyd" FSD-111 Series Combination Fire and Smoke Dampers — ( Alternative Size Range ) / Model : FSD-111-1 and FSD-111-2 / Construction : Channel frame constructed of 1.5 mm galvanized steel with an interlocking stacked hat section and 1.5 mm thick galvanized V-formed blades. Linkage device is zinc-plated steel concealed within the channel frame. The product can also be of an entirely stainless steel (Grade 304 or 316) or a combination of galvanized steel and stainless-steel construction as described in the Assessment Report mentioned below. / Mounting : Vertical and horizontal as listed in UL File EMME.R14128/EMME.R26194, installed accordance with the manufacturer's recommendations and as per the relevant description in the Assessment Report. Breakaway joints to the requirements of UL should be provided for ductwork connected to the damper sleeves. / Sizes : a) FSD-111-1 Single section: 200 mm x 200 mm - 800 mm x 912 mm (W x H); Multiple sections: Max. 2,680 mm x 2,000 mm (W x H) b) FSD-111-2 Single section: 200 mm x 200 mm - 800 mm x 912 mm (W x H); Multiple sections: Max. 2,680 mm x 2,000 mm (W x H) / Actuator : 1. Belimo FSNF230US & thermal protection enclosure box (Model: HB 250) 3. Siemens GGD321. 1U & thermal protection enclosure box (Model: HB 250)	Lloyd Industries Inc., USA / Lloyd Asia Company Ltd, Hong Kong	17/2/2023		a) The dampers shall remain listed in the UL Certifications Directory. b) The fusible link shall remain listed in the UL Certifications Directory. c) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. d) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. e) This assessment is subject to review by July 2027 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1430)	"LASER" 9000 Series Combined Fire and Smoke Dampers / Model : a) 9000G G.I. frame, G.I. double skin airfoil blades b) 9000S G.I. frame, SS304/SS316 double skin airfoil blades / Mounting : Vertical and Horizontal / Sizes : a) Single module Minimum: 175 mm x 175 mm (Vertical/ Horizontal); Maximum: 800 mm x 800 mm (Vertical/ Horizontal) b) Multi-module up to 3332mm x 1644 mm (4 x 2 modules) (Vertical/ Horizontal) / Installation Method : a) Vertical/ Horizontal mounting; b) In accordance with the manufacturer's recommendations detail in the assessment report no. FC14264-001 ISSUE 1 by BRANZ of 3.9.2021; c) Breakaway joints should be provided in the ductwork connected to the damper in accordance with the requirements of UL 555 / Actuator : a) "Gruner" UL360S-024-090-S2-SK/ UL360S-230-090-S2-SK or UL360S-024-135-S2-SK/UL360S-230-135-S2-SK electrical spring return actuator; b) "Honeywell" MS4609F1210 or MS4620F1203 electrical spring return actuator Remark: Damper actuator should be with G.I. thermal jacket enclosure for 250°C at 1 hour accordingly to manufacturer's recommendations detail	Laser Resources (Asia) Co. Ltd	27/3/2023	ŕ	a) The dampers shall remain listed in the UL Certifications Directory; b) Valid certificates and test reports shall be maintained; c) A "Laser" trade mark and Q & A label shall be provided at the fire and smoke damper to indicate its manufacturer's name, model and type. d) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating no exceeding 69°C e) This assessment letter is subject to review by January 2025.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1434)	"TROX" JFM-G Series Fire & Smoke Dampers with BELIMO Electric Actuators - FSAF230A-S / Model: "JFM-G" multi-blade fire and smoke dampers with vertical and horizontal mounting models / Construction: Assemblies is of galvanised mild steel construction, with 2 mm thick case, 1.2 mm thick blades for vertical / horizontal mounting and 4 units of spring return electric actuator as described in the test reports. The frame section is welded at corners to form a rigid frame in which the blades are housed. The damper blades is in opposed blade action to provide a double skin aerofoil section with intermeshing tip-tip configuration. / Size: Single Module - Maximum size up to 2,200mm(W) x 2,500mm(H) with construction details in accordance with the manufacturer's drawing. / Mounting: Vertical and horizontal / Installation method: In accordance with the manufacturer's recommendations and manufacturer's drawings / Actuator: "Belimo" FSAF230A-S electric actuator protected by thermal enclosure made from 1.0mm thick galvanized steel and lined with 50mm thick ceramic fiber blanket (stated to DURABLANKET®S) with measured density of 122kg/m³.	TROX (Malaysia) Sdn. Bhd., Malaysia	3/5/2023	·	a) The damper, actuator and thermal enclosure shall be permanently marked or stamped with labels which shall remain visible after fixed into positions for identification of brand name and model.      b) This assessment letter is subject to review by May 2028 or with the updating of the edition of the test standard.
Fire & Smoke Damper (1438)	"LASER" 9000 Series Combined Fire and Smoke Dampers / Model : a) 9000G G.I. frame, G.I. double skin airfoil blades; b) 9000S G.I. frame, SS304/SS316 double skin airfoil blades / Mounting : Vertical and Horizontal / Sizes : a) Single module Minimum: 175 mm x 175 mm (Vertical/ Horizontal); Maximum: 800 mm x 800.mm (Vertical/ Horizontal) b) Multi-module up to 3332mm x 1644 mm (4 x 2 modules) (Vertical/ Horizontal) / Installation Method : a) Vertical/ Horizontal mounting; b) In accordance with the manufacturer's recommendations detail in the assessment report no. FC14264-001 ISSUE 1 by BRANZ of 3.9.2021; c) Breakaway joints should be provided in the ductwork connected to the damper in accordance with the requirements of UL 555 / Actuator : a) "Gruner" UL360S-024-090-S2-SK/ UL360S-230-090-S2-SK or UL360S-024-135-S2-SK/ UL360S-230-135-S2-SK electrical spring return actuator; b) "Honeywell" MS4609F1210 or MS4620F1203 electrical spring return actuator  Remark: Damper actuator should be with G.I. thermal jacket enclosure for 250°C at 1 hour accordingly to manufacturer's recommendations detail	Laser Resources (Asia) Co. Ltd	6/7/2023		a) The damper shall remain listed in the UL Certifications Directory; b) Valid certificates and test reports shall be maintained; c) A "Laser" trade mark and Q & A label shall be provided at the fire and smoke damper to indicate its manufacturer's name, model and type. d) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C e) This assessment letter is subject to review by March 2028.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1449)	"Lloyd" FSD-111 Series Combination Fire and Smoke Dampers — ( Additional Installation Method ) / Model: FSD-111-1 and FSD-111-2 / Construction: Channel frame constructed of 1.5 mm galvanized steel with an interlocking stacked hat section and 1.5 mm thick galvanized V-formed blades. Linkage device is zinc-plated steel concealed within the channel frame. The product can also be of an entirely stainless steel (Grade 304 or 316) or a combination of galvanized steel and stainless-steel construction as described in the Assessment Report mentioned below. / Mounting: Vertical and horizontal / Mounting certified under UL listing: Damper mounting position, corresponding Hr class and damper sizes as listed in UL File EMME.R14128/EMME.R26194, installed in accordance with the manufacturer's recommendations and as per the relevant description in the assessment reports. Breakaway joints to the requirements of UL should be provided for ductwork connected to the damper sleeves. / Mounting tested / assessed on BS476: Part 20:1987 / Damper mounting position, installation methods and damper sizes as listed below, installed in accordance with the manufacturer's recommendations and per the relevant descriptions in the corresponding assessment reports. / Damper Sizes: a) FSD-111-1 Single section: 200 mm x 200 mm - 800 mm x 912 mm (W x H); Multiple sections: Max. 2,680 mm x 2,000 mm (W x H) b) FSD-111-2 Single section: 200 mm x 200 mm - 800 mm x 912 mm (W x H); Multiple sections: Max. 2,680 mm x 2,000 mm (W x H) / Actuators: 1. Belimo FSNF230US & thermal protection enclosure box (Model: HB 250) 3. Siemens GGD321.1U & thermal protection enclosure box (Model: HB 250)	Lloyd Asia Company Ltd, Hong Kong	11/9/2023		a) The dampers shall remain listed in the UL Certifications Directory. b) The fusible link shall remain listed in the UL Certifications Directory. c) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. d) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. e) This assessment is subject to review by July 2027 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire & Smoke Damper (1468)	"TROX" JFM-G JFM-E, JFM-E2 Series Fire and Smoke Dampers with Electric Actuators / Model: "JFM-G", "JFM-E" and "JFM-E2" Series multi-blade fire and smoke dampers with vertical and horizontal mounting models / Construction: a) <u>JFM-G Series</u> Assemblies is of galvanised mild steel construction, with 2 mm thick case, 1.2 mm thick blades for vertical / horizontal mounting and 4 units of spring return electric actuator as described in the test reports. The frame section is welded at corners to form a rigid frame in which the blades are housed. The damper blades is in opposed blade action to provide a double skin aerofoil section with intermeshing tip-tip configuration. Construction b) <u>JFM-E Series</u> Same as JFM-G series, but with the sleeve & frame, blades, blade spindles and blade to spindle fixing and linkage of Grade 304 or 304L stainless steel.  c) <u>JFM-E2 Series</u> Same as JFM-G series, but with the sleeve & frame, blades, blade spindles and blade to spindle fixing and linkage of Grade 316 or 316L stainless steel. / Damper Size: a) Single Module - Maximum size up to 2,200mm(W) x 2,500mm(H) with construction details in accordance with the manufacturer's drawing. b) Multiple Modules - Maximum size up to 4,550mm(W) x 2,500mm(H) by connecting two single damper module. The connection is comprised of joining angles in 75mm x 75mm x 6mm at the back and cover plate at the front being fitted to the full height of the module. / Mounting: Vertical and horizontal / Installation method: In accordance with the manufacturer's recommendations and manufacturer's drawings / Actuator: a) "Belimo" FSAF230A-S electric actuator protected by thermal enclosure made from 1.0mm thick galvanized steel and lined with 50mm thick ceramic fiber blanket (stated to DURABLANKET®S) with measured density of 122kg/m³. [For max. damper dimension of 2,200mm(W) x 2,500mm(H)] b) "ROTORK" RCEL 028 electric actuator and "AMG Actuators Ltd" LSS-U2WHFHM limit switch [For max. damper dimension of 4,550mm(W) x 2,500mm(H)]		2/11/2023		a) The damper, actuator and thermal enclosure shall be permanently marked or stamped with labels which shall remain visible after fixed into positions for identification of brand name and model. b) This assessment letter is subject to review by October 2028 or with the updating of the edition of the test standard.
Fire Damper (1478)	"Megaflow" Curtain Type Fire Damper / Brand Name : Megaflow / Model : 5500-E6 LPB / Construction : Un-insulated curtain damper of galvanized steel frame and blades construction complete with fusible link held it in open position / Sizes and Mounting : Single Module (1.5 Hr FRP) Vertical/Horizontal : 1200mm x 1200mm (W x H) (Maximum) Single Module (4 Hr FRP) Vertical : 914mm x 1143mm (W x H) (Maximum) Multiple Damper Configuration (1.5 Hr FRP) Vertical : 3048mm x 1829mm (W X H) Horizontal : 2896mm x 1524mm (W x H) / Installation Method : In accordance with the manufacturer's recommendations detailed in the test reports and drawings of standard installation method.	Megaflow Industry Inc. (Taiwan)	15/12/2023		a) The dampers shall remain listed in the UL Certifications Directory. b) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C. c) This assessment is subject to review by December 2028.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Damper (1482)	"Ruskin" IBD Curtain Type Fire Damper Incorporated with "Burgess" Micro Switch / Model: IBD Curtain Type Fire Damper and 4BR Micro Switch / Construction: A curtain damper formed by interlocking galvanized mild steel/ stainless steel (Grade 304 or 316) blades mounted in a galvanized mild steel/ stainless steel (Grade 304 or 316) frame held in open position by fusible link; closure of damper is by stainless steel springs with surface mounted "Burgess" micro switch / Mounting: Vertical and Horizontal / Maximum Sizes: Vertical single: 1200mm x 1100mm (W x H) 900mm x 1800mm (W x H) / Maximum Multiple Assembly Size: Horizontal multiple: 2800mm x 1200mm (W x H); 2725mm x 1200mm (W x H) / Installation Method: a) For fire damper: In accordance with the manufacturer's recommendations detail in the test reports; b) For micro switch: In accordance with the recommendation made in the Assessment Report no. IA20-088_Version 4 of 26.10.2023 by Forte Testing and Consultants Co. Ltd: -  (i) The "Burgess" micro switch and the associated cables must not affect the operation of the damper blades;  (ii) The signal cable connecting to the micro switch shall be enclosed in metal conduit and sealed at both ends by fire resistant sealant;  (iii) The micro switch shall be covered by G.I. steel casing with melting point 800 °C or above.	Delta Pyramax Co. Ltd	15/2/2024		a) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C. b) This assessment is subject to review by June 2025. c) The manufacturer's name of "Delta Pyramax Co. Ltd" and model no. "IBD" shall be clearly and durably marked in a conspicuous location on the fire damper. d) The following standards shown on the catalogue should be updated: (i) Underwriters Laboratories Inc. (UL) 555 is not valid as the test reports related to UL 555 were withdrawn in this application in letter dated 25.1.2024.; (ii) ISO 9001:2015 was updated in this application in letter dated 25.1.2024.
Fire & Smoke Damper (1487)	"Megaflow" Multi-blade Type Fire and Smoke Damper / Model : 5050-2 and 5050-1 / Construction : Un-insulated multi-blade damper of galvanized steel construction complete with linkages / Maximum Sizes : Vertical single: 914mm x 1143mm (W x H) Horizontal single: 914mm x 1143mm (W x H) / Maximum Multiple Assembly Size : Vertical multiple: 1828mm x 1143mm (W x H);Horizontal multiple: 1828mm x 1143mm (W x H) / Actuator : Belimo - FSNF230US Honeywell - MS4609F1010 and MS4620F1005 Remarks : Damper actuator should be installed in a galvanized steel enclosure insulated internally with rockwool of density 100 kg/m³ as tested for 250°C at 1 hour. Details are as illustrated in the Report No.: R23C08-1A of 13.03.2023 issued by Research Engineering Development Façade Consultants Limited. / Installation Method : In accordance with the manufacturer's recommendations details / Fusible Link : Model 'G' 68°C fusible link of Globe Technologies Corporation listed by UL File JGIX.R1431.	(Taiwan)	16/4/2024	·	a) The dampers, actuators and fusible link shall remain listed in the UL Certifications Directory. b) The dampers shall be permanently marked or stamped with label(s) which shall remain visible after fixed into position for the identification of brand name and model. c) Damper catalogue should be updated for maximum multiple assembly sizes at 1828mm x 1143mm (W x H). d) Valid assessment report on the integrity of multiple module damper assembles to BS 476: Part 20 shall always be made available. e) This assessment is subject to review by April 2029.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Fire Damper (1500)	"Pacific" 8001 Curtain Type Fire Damper / Model: "Pacific" 8001 Curtain Type Fire Damper / Construction: Curtain type fire damper formed by interlocking galvanized mild steel/ stainless steel (Grade 304 or 316) blades mounted in a galvanized mild steel/ stainless steel (Grade 304 or 316) frame held in open position by fusible link; closure of damper is by stainless steel springs; Incorporated with surface mounted "Burgess" (model: 4BR) micro switch (optional) / Vertical and Horizontal / Sizes and Mounting:  Single Horizontal Module (4 Hr FRP) 100mm x 100mm (W x H), 900mm x 1200mm (W x H).  Single Vertical Module (4 Hr FRP) 100mm x 100mm (W x H), 300mm x 300mm (W x H), 1200mm x 1100mm (W x H). Multiple Horizontal Configuration (4 Hr FRP), 2700mm x 2900mm (W x H). Multiple Vertical Configuration (4 Hr FRP) 2950mm x 2950mm (W x H) / Installation Method: Follow the manufacturer's recommendations detailed in the following test reports.	Delta Pyramax Co. Ltd, Hong Kong	8/7/2024	,	a) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C.     b) This assessment is subject to review by July 2029.
Fire Damper (1518)	"Ruskin" IBD Curtain Type Fire Damper Incorporated with "Burgess" Micro Switch / Model: IBD Curtain Type Fire Damper and 4BR Micro Switch / Construction: A curtain damper formed by interlocking galvanized mild steel/ stainless steel (Grade 304 or 316) blades mounted in a galvanized mild steel/ stainless steel (Grade 304 or 316) frame held in open position by fusible link; closure of damper is by stainless steel springs with surface mounted "Burgess" micro switch / Mounting: Vertical and Horizontal / Maximum Sizes: Vertical single: 1200mm x 1100mm (W x H) 900mm x 1800mm (W x H) / Maximum Multiple Assembly Size: Horizontal multiple: 2800mm x 1200mm (W x H); 2725mm x 1200mm (W x H) / Installation Method: a) For fire damper: In accordance with the manufacturer's recommendations detail in the test reports; b) For micro switch: In accordance with the recommendation made in the Assessment Report no. IA20-088 Version 5 of 9.5.2024 by Forte Testing and Consultants Co. Ltd:- (i) The "Burgess" micro switch and the associated cables must not affect the operation of the damper blades; (ii) The signal cable connecting to the micro switch shall be enclosed in metal conduit and sealed at both ends by fire resistant sealant; (iii) The micro switch shall be covered by G.I. steel casing with melting point 800 °C or above.	Delta Pyramax Co. Ltd	28/8/2024		a) The fusible link used with the damper shall be a type approved by the Director of Fire Services and with a rating not exceeding 69°C. b) This assessment is subject to review by August 2029. c) The manufacturer's name of "Delta Pyramax Co. Ltd" and model no. "IBD" shall be clearly and durably marked in a conspicuous location on the fire damper.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
(7) Flexible Ventilation	Ruskin Model "TFD80" Tunnel Ventilation Fire and Smoke Damper / Country of Original: Thailand / Model: TFD80 Tunnel Ventilation Fire and Smoke Damper / Construction: Channel frame constructed of Type 304 / Type 316 stainless steel / Galvanized steel of 3.0mm thick with stainless steel bearing fitted into frame. Damper blades are double-skin construction of Type 304 / Type 316 stainless steel / Galvanized steel in full length / Mounting: Vertical and Horizontal / Size: Maximum 3,400mm x 2,148 mm (W x H) / Actuator: a) "Ruskin" ETS15-O-dA-K2-CCW electric actuator encased in 1.0 mm thick stainless grade 304 box with thermal insulation of density 128 kg/m³ for operating single module b) "Ruskin" ETS15-O-dA-K2-CCW electric actuator encased in 1.0 mm thick stainless grade 304 box with thermal insulation of density 128 kg/m³ for operating single module / Installation Method: In accordance with the manufacturer's recommendation / Fire Resistance Integrity: 240 minutes for vertical and horizontal mounting / Leakage classification: Class I	Ruskin (Thailand) Co. Ltd	11/11/2024		a) The dampers shall be permanently marked or stamped with label(s) which remain visible after fixed into position for identification of brand name and model. b) This assessment is subject to review by November 2029 or with the updating of edition of the test standard.
Florible Duct (4400)	In the death of the Holl Abording Florida Death Death New Hole at 10 Construction A Statistics	LUTAL Development Lat. DDO	0/5/0040	. Mari 0004	N
Flexible Duct (1102)	"Aluduct" Class "0" Aluminium Flexible Duct Brand Name: "Aluduct" / Construction: A flexible duct comprising a core layer of aluminium laminate with an encapsulated high tensile spring steel wire helix, an insulation layer of fiberglass blanket (25 mm thick and density of 16 kg/m³) and an outer vapour barrier layer made of aluminium foil. / Application: For flexible air duct in ventilating system	JITAI Development Ltd., PRC	9/5/2019		a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment letter supersedes our previous one of the same series dated 13.8.2014. c)This assessment is subject to the review by May 2024 or with the updating of the edition of the testing standard.
Flexible Duct (1116)	"Aluduct" Class "0" Aluminium Flexible Duct / Brand Name : "Aluduct" / Construction : A flexible duct comprising a core layer of aluminium laminate with an encapsulated high tensile spring steel wire helix, an insulation layer of fiberglass blanket (25 mm thick and density of 16 kg/m³) and an outer vapour barrier layer made of aluminium foil. / Application : For flexible air duct in ventilating system	JITAI Development Ltd., PRC	9/5/2019	,	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment letter supersedes our previous one of the same series dated 13.8.2014. c) This assessment is subject to review by May 2024 or with the updating of the edition of the testing standard.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Flexible Duct (1180)	"TANDA" TA-01 Flexible Duct / Brand Name: "TANFDA" TA-01 Flexible Duct / Material: The duct can be of different diameters of 100mm, 200mm, 300mm comprises of an insulation layer of fiberglass (25 mm thick, 24 kg/m³) sandwiched between an inner core of aluminium foil encapsulating spring steel wire helix and an outer aluminum foil.	TANDA International Company Ltd.	21/5/2020	November 2023	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The product shall have label tag bearing the work "TANDA model TA-01" and diameter of flexible duct sewn on it as a means of identification. c) This assessment is subject to review by November 2023 or with the updating of the edition of the testing standard.
Flexible Duct (1181)	"PAL <sup>®n</sup> Winflex 33i Flexible Air Duct / Model: "PAL <sup>®n</sup> Winflex 33i Insulated Aluminium Flexible Air Duct / Product Description: A factory made insulated round flexible air duct of different diameters with inner foil facing encapsulating a high tensile spring steel wire helix to form the wall of the air duct which is insulated with 25 mm thick, density 24 kg/m³ yellow colour fiberglass with 1 layer of metalized polyester and 1 outer layer of aluminium foil laminated with fire retardant adhesive with tri-direction glass-fibre scrim reinforcement.	Dongguan Juwun Rubber & Plastic Products Co. Ltd., PRC	21/5/2020	June 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The brand name and model number should be marked on the product. c) This assessment supersedes our previous one of the same series dated 2.12.2015.
Flexible Duct (1220)	"PAL <sup>®</sup> " DF16 Class '0' Duct Fabric / Model : "PAL <sup>®</sup> " DF16 Class '0' / Material : A black polymeric coated textile-glass material with nominal thickness of 0.4 mm and weight of 550 g/m <sup>2</sup> . / Application : Construction of flexible connector for air ductwork in ventilating system	Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	4/9/2020	August 2025	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition as that are not our requirements. b) The brand and model name should be marked on the product. c) This assessment letter supersedes our previous one of the same series dated 5.4.2016
Flexible Duct (1261)	"Supaflex" 13 AP Flexible Air Duct / Manufacturer : Delta Duct Systems Ltd / Brand Name : "Supaflex 13 AP" Flexible Air Duct / Material : The duct comprises of an insulation layer of glasswool (light yellow colour, 25 mm thick, 24 kg/m³) sandwiched between an inner core of aluminium/polyester laminate encapsulating spring steel wire helix and an outer aluminum/polyester vapour barrier.	Delta Duct Systems Ltd	31/12/2020	December 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The word "SUPAFLEX" is to be marked on the outer surface of the product at approx. 1000 mm interval for product identification. c) This letter supersedes our previous letter of the same series dated 31.5.2019. d) This assessment is subject to review by December 2025 or with the updating of the edition of the test standard.

### **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Flexible Duct (1266)	"TANDA" TA-01 Flexible Duct / Brand Name: "TANDA" TA-01 Flexible Duct / Material: The duct can be of different diameters of 100mm, 200mm, 300mm comprises of an insulation layer of fiberglass (25 mm thick, 24 kg/m³) sandwiched between an inner core of aluminium foil encapsulating spring steel wire helix and an outer aluminum foil.	TANDA International Company Ltd	8/2/2021		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The product shall have label tag bearing the work "TANDA model TA-01" and diameter of flexible duct sewn on it as a means of identification. c) This assessment is subject to review by November 2023 or with the updating of the edition of the test standard. d) This letter supereded our previous letter under ref. FP(LC)316/16 dated 21 May 2020.
Flexible Duct (1273)	"Wei Li" Aluminium Flexible Air Duct / Model: "Wei Li" Insulated Aluminium Flexible Air Duct / Product Description: A factory made insulated flexible air duct of 200mm diameter comprising of an inner layer of aluminium foil facing encapsulating galvanized steel wire helix to form the wall of the air duct which is insulated with 25 mm thick, density 32 kg/m³ fibreglass with Top Overlapped and Bottom Overlapped aluminium foil / Duct Size: 200 mm diameter only	Dong Guan Shi Wei Li Ruan Guan Jai Gong Chang, PRC	31/3/2021	May 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirement.
Flexible Duct (1436)	"DEC" Flexible Air Duct / Model: "Econoflex A-1 I25AL" / Material: a) An outer sleeve comprising the aluminum foil face with overall thickness of approximately 0.07mm forms the outer surface of the ducting. b) A core of fibre glass insulating has a thickness of 25mm and a density of 24 kg/m³).  c) An inner sleeve similar in construction to the outer sleeve but encapsulating a high tensile steel wire helix.		2/6/2023	June 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire. b) The brand name should be clearly marked on the flexible duct. c) This assessment letter is subject to review by June 2028 or with the updating of the edition of the test standard.
Flexible Duct (1439)	"TANDA" model TA-01 Flexible Duct / Brand Name: "TANDA" TA-01 Flexible Duct / Material: The duct can be of different diameters of 100mm, 200mm, 300mm comprises of an insulation layer of fiberglass (25 mm thick, 24 kg/m³) sandwiched between an inner core of aluminium foil encapsulating spring steel wire helix and an outer aluminum foil.	TANDA International Company Ltd	29/6/2023		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The product shall have label tag bearing the work "TANDA model TA-01" and diameter of flexible duct sewn on it as a means of identification. c) This assessment is subject to review by June 2028 or with the updating of the edition of the test standard. d) This letter superseded our previous letter under ref. FP (LC)316/16 dated 8.2.2021.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Flexible Duct (1475)	"KH" Insulated Aluminium Flexible Air Duct / Brand and Model: Kai Hang "KH" Insulated Aluminium Flexible Air Duct / Material: a) The outer layer consists of two-layer of high-temperature resistant PET, coated with high-pressure electrostatically plated aluminium powder, sandwiched with glass fiber filaments. b) A core of fibre glass insulating has a thickness of 25mm and a density of 32kg/m³. c) The inner tube is supported by a layer of high-tension spiral carbon steel wire helix and high-pressure electrostatically plated aluminium powder PET. / Duct Size: a) DN 80, 100 & 125	Dongguan Shangfeng Air Conditioning Parts Co. Ltd.	5/12/2023	December 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire.     b) The brand name should be clearly marked on the flexible duct.     c) This assessment letter is subject to review by December 2028 or with the updating of the edition of the test standard.
Flexible Duct (1491)	"Aluduct" Class "0" Aluminium Flexible Duct / Brand Name: "Aluduct" / Construction: A flexible duct comprising a core layer of aluminium laminate with an encapsulated high tensile spring steel wire helix, an insulation layer of fiberglass blanket (25 mm thick and density of 16 kg/m³) and an outer vapour barrier layer made of aluminium foil. / Application: For flexible air duct in ventilating system.	GuangZhou Getai Development Co., Ltd., PRC	2/5/2024	May 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not FSD requirements. b) This assessment is subject to review by May 2029 or with the updating of the edition of the testing standard.
Flexible Duct (1516)  (8) Energy Reco	"PAL <sup>®n</sup> Winflex 33ib Class '0' Insulated Black Aluminium Flexible Air Duct / Brand / Model No.: "PAL <sup>®n</sup> / Winflex 33ib Class '0' Insulated Black Aluminium Flexible Air Duct / Product Description: A factory finished high quality insulated black aluminium flexible air duct with a reinforced metalized outer jacket enclosing within 25 mm thick, density 24 kg/m³ fibreglass insulation wrapped around PAL <sup>®</sup> Winflex 33 inner core / Application: Flexible duct connector for ventilating system.	Dongguan Juwun Rubber & Plastic Products Co. Ltd., PRC (Invested by Phenotherm Asia Limited)	27/8/2024	August 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The packing of the product should bear the Brand Name of the product. c) This assessment is subject to review by August 2029.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Energy Recovery Ventilator (1160)	"STC-EHRV" Energy Humidity Recovery Ventilator / Model: (i) "SD" Series (ii) "SH" Series (iii) "RP" Series / Construction: "SD" Series: An internally insulated rectangular galvanized steel enclosure containing a belt driven galvanized steel rotary wheel with galvanized steel blower fans housing six removable sectors of core material for heal/humidity exchange. The core material is packed 38 mm thick polyester (PE) fiber of 25 - 150 micrometer diameter with a surface density of 3.9 kg/m². Two sets of aluminum pre-filters are fitted on the air inlets of the unit. "SH" Series & "RP" Series An internally insulated rectangular galvanized steel enclosure containing a belt driven galvanized steel rotary wheel housing six removable sectors of core material for heat/humidity exchange. The core material is packed 38 mm thick polyester (PE) fiber of 25 -150 micrometer diameter with a surface density of 3.9 kg/m². Two sets of aluminum pre-filters are fitted on the air inlets of the unit. / Unit Size: (i) 70 m³/h to 1,500 m³/h (ii) 600 m³/h to 2,000 m³/h (iii) 2,000 m³/h to 40,000m³/h		5/12/2019	September 2027	a) No assessment was made on the density and toxicity of smoke generated by the core material under fire condition. b) All electric cables installed inside the ventilator are to be contained in metallic conduit. c) Valid test report shall be made available on request to demonstrate that the internal insulation used in the ventilator can comply with the requirement of having an overall fire propagation index I $\leq$ 12, sub-index i $_1 \leq$ 6 when tested in accordance with BS 476 Part 6 or equivalent standards. d) This assessment supersedes our previous one of the same series dated 21.9.2015
(9) Smoke Extraction	on Fans				
Smoke Fan (1013)	"Systemair" AXC(B) Series Axial Smoke Extraction Fan / Model : AXC(B) series as listed in the product certificate no.: KM 622130 of 6.2.2018 / Type : Axial fan	Systemair Sdn. Bhd., Malaysia	2/3/2018	February 2028	(a) The captioned product shall remain listed by BSI Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. (c) The following fan categories are excluded from the above application: 1. AJR axial fan range (Leroy Somer motors); and 2. AJR axial fan range (WEG motors). (d) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Smoke Fan (1014)	Nuaire Smoke Fans for Smoke Extraction System / Model: Smoke Axus Circular - Long Cased Axials 4Z, 5Z, 6W, 9W / Smoke Axus Circular - 3H Impellers / Smoke Axus Circular - Long Cased Axial Fixed Pitch Steel / Smoke Axus Circular - P* range / Smoke Axus Circular - Variable Pitch Steel / Smoke Axus Circular - Fixed Pitch Steel / Smoke Axus Circular - Axus P* Range (as listed in the BSI Kitemark Certificate No.: KM 614968 Page 2, 4, 5, 6) / Type: Axial Fan	Nuaire : A Trading Division Polypipe Limited, U.K.	21/3/2018	March 2027	(a) The captioned product shall remain listed by BSI Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. (c) The following fan categories are excluded from the above application: 1. Smoke Contra Rotating Axial (AXC) 2. Smoke Run and Standby Axial (AXT) (d) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Axial Fan (1037)	"FläktWoods" JM Aerofoil H.T. Series Axial Fan / Model : JM Aerofoil H.T. series as listed in the product certificate no.: 0086-CPR-474878 of 15.12.2017 / Type : Axial fan / Product Listing Document : BSI Assurance UK Ltd.'s Certificate No.: 0086-CPR-474878 of 15.12.2017	FläktWoods Limited, U.K.	19/1/2018	January 2028	(a) The captioned product shall remain listed by IFC Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. c) The following fan categories are excluded from the above application: 1. The fans that are tested with temperature and duration lower than 250°C and 1 hour; and 2. Car park range as stated in pages 18 to 24 of the BSI certificate. (d) A valid certificate of the quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Smoke Fan (1075)	Nuaire Smoke Fans for Smoke Extraction System / Model: Smoke Axus Circular - Long Cased Axials 4Z, 5Z, 6W, 9W / Smoke Axus Circular - 3H Impellers / Smoke Axus Circular - Long Cased Axial Fixed Pitch Steel / Smoke Axus Circular - P* range / Smoke Axus Circular - Variable Pitch Steel / Smoke Axus Circular - Fixed Pitch Steel / Smoke Axus Circular - Axus P* Range (as listed in the BSI Kitemark <sup>TM</sup> Certificate No.: KM 614968 Page 2, 4, 5, 6) / Type: Axial Fan / Product Listing Document: BSI Certificate of Constancy of Performance - Certificate No.: 0086-CPR-672476 of 25.10.2017 BSI Kitemark <sup>TM</sup> Certificate - Certificate No.: KM 614968 of 25.10.2017	Polypipe Limited, U.K.	19/11/2018	March 2027	(a) The captioned product shall remain listed by BSI Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. (c) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. d) This letter supersedes our previous letter dated 21.3.2018.
Smoke Fan (1079)	Nuaire Smoke Fans for Smoke Extraction System / Model: Smoke Axus Circular - Long Cased Axials 4Z, 5Z, 6W, 9W / Smoke Axus Circular - 3H Impellers / Smoke Axus Circular - Long Cased Axial Fixed Pitch Steel / Smoke Axus Circular - P* range / Smoke Axus Circular - Variable Pitch Steel / Smoke Axus Circular - Fixed Pitch Steel / Smoke Axus Circular - Axus P* Range (as listed in the BSI Kitemark <sup>TM</sup> Certificate No.: KM 614968 Page 2, 4, 5, 6) / Type: Axial fan / Product Listing Document: BSI Certificate of Constancy of performance - Certificate No.: 0086-CPR-672476 of 25.10.2017 BSI Kitemark <sup>TM</sup> Certificate - Certificate No.: KM 614968 of 25.10.2017	Polypipe Limited, U.K.	14/12/2018	March 2027	(a) The captioned product shall remain listed by BSI Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. (c) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. d) This letter supersedes our previous letter dated 19.11.2018 and 21.3.2018

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

ТҮРЕ	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Smoke Fan (1163)	Wolter."AXV", "AXV-BD", "AXV-DD", "HRE" & "HRZ" Series Fans for Smoke Extraction Systems / Product Name: "AXV", "AXV-BD", "AXV-DD", "HRE" & "HRZ" Series / Type and Size:  Item Model Series Fan Type Fan Range 1 AXV Axial fan 315 to 2,800 mm 2 AXV-BD Axial fan with 400 to 1,575 mm 2 external belt driven motor 3 AXV-DD Bifurcated axial fan 400 to 1,575 mm 4 HRE Single inlet & single width centrifugal fan with external direct driven motor 5 HRZ Double inlet & 315 to 1,600 mm 4 double width centrifugal fan with external belt driven motor 5 HRZ Double inlet & 315 to 1,000 mm 5 HRZ Double inlet & 315 to 1,000 mm 6 double width centrifugal fan with external belt driven motor Construction ("AXV"): (a) Fan housing: Mild steel with epoxy paint/galvanized steel (b) Impeller hubs & blades: Die-cast aluminum alloy (c) Motor support: Galvanized steel (d) Terminal box: Die-cast aluminum alloy / Motor ("AXV"): (a) Manufacturer: Wolter Chemco (b) Bearing grease: Mobil Polyrex EM (c) Bearing clearance: C3 (d) Motor insulation: Class H (e) Utilization: Thermal Class F (f) Frame Size: 71 - 355 / Construction ("AXV-DD" or "AXV-BD): (a) Fan housing: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epoxy paint/galvanized steel (d) Terminal Box: Mild steel with epo	Dongguan Wolter Chemco Ventilation Ltd., PRC	30/12/2019		(a) For fans with external motors or belt driven motors, those external motors and components shall not be exposed to hot smoke. (b) This letter supersedes our previous letter of the same series dated 2.2.2017. (c) This assessment is subject to review by August 2024. (d) The dates of original issue of certificates of compliance issued by Singapore Laboratory Services are all over 10 years. According to FSD Circular letter No. 1/2007, test reports of an accredited laboratory should not be over 10 years. It is to remind that appropriate valid test reports fulfilling the above requirement instead of certificate of compliance should be submitted to support the next assessment.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Smoke Fan (1241)	Nuaire Smoke Fans for Smoke Extraction System / Model: Smoke Axus Circular - Long Cased Axials 4Z, 5Z, 6W, 9W / Smoke Axus Circular - 3H Impellers / Smoke Axus Circular - Long Cased Axial Fixed Pitch Steel / Smoke Axus Circular - P* range / Smoke Axus Circular - Variable Pitch Steel / Smoke Axus Circular - Fixed Pitch Steel / Smoke Axus Circular - Axus P* Range (as listed in the BSI Kitemark M Certificate No.: KM 614968 Page 2, 4, 6, 7, 8) / Type: Axial Fan / Product Listing Document: BSI Certificate of Constancy of Performance - Certificate No.: 2797 CPR 672476 of 15.06.2020 BSI Kitemark Certificate - Certificate No.: KM 614968 of 15.06.2020 / Compliance Standard: BS EN 12101-3:2015 / Product Details: In accordance with your letter ref.: L10259 dated 29.06.2020 and your previous submission dated 9.10.2018, the smoke extraction fans with product details in the BSI Kitemarks Certificate No.: KM614968 and Certificate of Constancy of Performance no. 2797 CPR 672476 as follows: (categorized by temperature rating) / <1> F300 Tested to 300°C for 120 minutes / Impeller Material Specifications Aluminum or steel / Fan Casing Material: Galvanized steel / Fan Motor Manufacturer: WEG / Motor Casing Material: Cast iron / Motor Frame Size: 71 mm to 280 mm / Motor Output: 0.55kW - 105kW / Class of Motor Insulation: Class H / <2> F400 Tested to 400°C for 120 minutes / Impeller Material Specifications Steel / Fan Casing Material: Galvanized steel / Fan Motor Manufacturer: WEG / Motor Casing Material: Cast iron / Motor Frame Size: 71 mm to 280 mm / Motor Output: 0.55kW - 105kW / Class of Motor Insulation: Class H / Quality Assurance Scheme: The manufacturer operates a quality management system to ISO 9001: 2015, Certificate Identify No. FM 665203 of 17.11.2016 by BSI Assurance UK Ltd.	Polypipe Limited, U.K.	23/10/2020	October 2030	(a) The captioned product shall be remain listed by BSI Certification and its listing status will be verified during compliance inspections. (b) The captioned product shall bear the appropriate identification markings. (c) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. (d) This letter supersedes our previous letter dated 14.12.2018. (e) This assessment is subject to review by October 2030 or with the updating of the edition of the testing standard.
Smoke Fan (1324)	"ELTA" Centrifugal Cabinet Fan for Smoke Extraction System / Product Name: Fantech / Elta Fans / Model / Code: ICFS / Fan Type: Centrifugal Cabinet Fan / Diameter: 400 mm to 1,000 mm / Construction Fan: (a) Fan casing: Galvanized Steel (b) Impeller: Steel (c) Motor Brand: TECO (d) Motor model: AESVIS (e) Terminal box: Steel / Construction Motor: (a) Motor frame size: 132 - 225 (b) Motor output power range: 2.2kW - 37kW (c) No. of Poles: 4 (d) Maximum Voltage: 380V / 415V / 50Hz / 3 phase (e) IP rating: IP55 / (f) Motor Insulation: Class H / Installation Method: In accordance with the manufacturer's recommendations and manufacturer's drawings.	Elta Fans Malaysia Sdn. Bhd, Malaysia	8/11/2021		a) The captioned fans and the associated motors shall be designed and constructed according to the manufacturer's instructions listing conditions. b) The captioned product shall bear the appropriate identification markings. c) A valid certification of quality management system certification to suitable international/ nation standard shall be provided to cover the manufacturing dates of the products during compliance inspections.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

Note (2): Please refer to FSD Circular Letter No. 1/2024 for Guidance for Application for Acceptance of FSIs and Fire Safety Products. If the product has been listed and published by a Product Certification Body (PCB) and Product Certification, it is deemed to be accepted by the FSD subject to such product being in conforming with all local relevant local requirements on product specification and its application in FSI systems / ventilating systems. In this connection, application for FSD acceptance on listed product is not required.

AUTHORIZED SUPPLIER	ACCEPTANCE DATE	REVIEW (Subject to Renewal)	
SUPPLIER  Dongguan Wolter Chemco  Ventilation Ltd	14/8/2024	August 2029	<ul> <li>(a) For fans with external motors or belt driven motors, those external motors and components shall not be exposed to hot smoke.</li> <li>(b) This letter supersedes our previous letter of the same series dated 30.12.2019.</li> <li>(c) This assessment is subject to reviewed by August 2029 of with the updating of the edition of the test standards.</li> </ul>

(10) Thermal / Acoustic Insulations

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Acoustic insulation (1019)	"Sargents" SILDUCT Silencer / Model : SILDUCT duct mounted attenuators / Construction : 0.55 mm thick perforated galvanized sheets front and back skins with fibreglass wool infill material wrapped by a 23 micron "Melinex" film; 0.8 mm thick galvanized steel sheet perimeter casing	Luen Wah Machine Welding & Iron Works Co., Ltd., PRC	17/4/2018	December 2027	a) The fibreglass wool infill material of the attenuator shall be of a type conforming to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96. b) This assessment letter supersedes our previous one of the same series dated 23.10.2015.
Thermal Insulation (1020)	"LAH /WTC 008" Fiber Glass Cloth Acoustic/Insulation Material / Brand / Model : "LAH/WTC008" / Material : Fiber glass cloth in 0.08mm thick and density approximately 92g/m² / Application : For use as internal insulation of ventilating ductwork	Shen Zhen Sailong Fiber Glass Co., Ltd., PRC	19/4/2018	August 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.
Thermal Insulation (1022)	"PHENOTHERM TM" Phenolic Foam Insulation Supports c/w "PAL® DSF 818" 8-Layers Double Sided Aluminium Foil Facing / Model: "PHENOTHERM TM" phenolic foam supports with "PAL® DSF 818" double sided reinforced aluminium foil facing / Material: CFC and HCFC free phenolic foam insulation material with 8-layers double sided reinforced alauminium foil vapour barrier / Density 120 kg/m³ / Thickness: 25 mm / Application: Insulation supports for ventilation ductwork and pipework	Phenotherm Asia Ltd., PRC	24/5/2018	March 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) The packing of the insulation materials should bear the Brand Name of the products. c) This assessment letter supersedes our previous one of the same series 3.4.2013.
Thermal Insulation (1023)	"PHENOTHERM <sup>TM*</sup> Phenolic Foam Insulation Supports c/w "PAL® DSF-Black 818" 9-Layers Double Sided Aluminium Foil Facing / Model : "Phenotherm <sup>TM*</sup> phenolic foam supports with "PAL® DSF-Black 818" double sided aluminium foil facing / Material : CFC and HCFC free phenolic foam insulation material with 9-layers double sided reinforced alauminium foil vapour barrier in black colour coating / Density 120 kg/m³ / Thickness : 25 mm	Phenotherm Asia Limited., PRC	24/5/2018	March 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) The packing of the insulation materials should bear the Brand Name of the products.
Acoustic Insulation (1024)	"Wincell" Internal Thermal / Acoustic Insulation / Brand / Model : Wincell / Wincell W0 / Material : NBR (nitrile-butadiene rubber) Closed Cell Thermal Insulation Material / Thickness/ Density : 20 mm / 60kg/m³±5kg/m³	Jiangsu Zhaosheng Building Material Co., Ltd., PRC	24/5/2018	January 2023	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements.
Thermal Insulation (1031)	"Owens Corning" EcoTech® Blanket Fibreglas Insulation" with 763 Black DSF Facing / Brand/Model: "EcoTouch Blanket Fiberglas Insulation" with 763 Black DSF facing material / Material: "EcoTouch" blanket type fiberglass insulation material laminated with DSF 763 facing on one side comprising of 763 Black DSF facing with Polymeric coating/Fiberglass / Density: 24 - 48 kg/m³ / Thickness: 25 - 50 mm / Application: For external insulation of ventilation ductwork	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	9/7/2018	May 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1036)	"Insul Cold <sup>™</sup> Elastomeric Insulations Materials for Ventilation System / Brand : Insul Cold <sup>™</sup> / Density : 40 kg/m³ - 50 kg/m³ / Thickness : 25 mm	Owens Corning (China) Investment Co. Ltd	20/7/2018	September 2027	a) No assessment was made on toxicity of smoke generated by the material under fire. b) The packing of the product should bear the Brand Name of the product
Thermal Insulation (1040)	"KFX" Series Insulated Pipe Support System / Brand Name: KFX / Material: Rigid polyurethane perimeter surrounded by 20mm thick x 200kg/m³ K-Flex flexible elastomeric insulation foam. The exposed surfaces are laminated with 0.2mm thick double-sided aluminum foil and fully enclosed by a 0.8mm thick galvanized iron sheet painted black / Size: a) Length of support assembly: 60mm to 190mm b) Inner diameter of ventilation pipe-work: 15mm to 610mm	Kaimans Insulation & A/C Parts Limited, Hong Kong	9/8/2018	July 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirement. b) The exposed surfaces of the insulation materials shall be fully enclosed by a 0.8mm thick galvanized iron sheet. c) This assessment letter supersedes our previous one of the same series dated 21.1.2013
Thermal Insulation (1045)	"ROCKWOOL®" ThermalRock / Rock Tech Thermal Insualtion for Mechanical Ventilating Systems / Brand Name / Model : (a) Rockwool® ThermalRock S (Slab): S60, S80, S100 and S140 (b) Rockwool® RockTech Slab Series: S350, S450 S650, / Material : Stonewool Board material made of basalt, a volcanic stone / Thickness : 50mm / Density : 60kg/m³, 80kg/m³, 100kg/m³ and 140kg/m³ / Application : For acoustic or thermal insulation in ventilation ductwork in ventilating systems		31/8/2018	December 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) No assessment was made on the composition / information on the ingredients of the material.
Thermal Insulation (1046)	"AFICO" Glasswool (Mineral Wool) with WGF (Black Woven Glass Fabric) Facing for Air Duct Internal Lining / Product Name: Duct Liner, Mechanical Boards / Material: Mineral wool with water based adhesive and woven glass fabric (WGF) / Thickness / Density: 50 mm / 48 kg/m <sup>3</sup>	Arabian Fiberglass Insulation Co., Ltd., Saudi Arabia	5/9/2018	April 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1047)	"PHENOTHERM" Phenolic Foam Insulation with "PAL® DSF-Black 818" Aluminium Foil Facing for Pipework and Ductwork Insulation / Material : A composite insulation material comprising "Phenotherm" closed cell phenolic foam faced with "PAL® DSF-Black 818" (9-layers) double sided reinforced aluminium foil facing / Density and thickness : " 40 kg/m³; 25 mm thick / Application : Insulation of ventilation duct work and pipe work	Plastic Products Co., Ltd.,	4/9/2018	August 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand Name of the products. c) This assessment letter supersedes our previous one of the same series dated 12.12.2014.
Thermal Insulation (1055)	"Fiberflex" Composite Elastomeric Thermal Insulation / Model : "Fiberflex" Composite Elastomeric Thermal Insulation with fire resistant surface / Material : Elastomeric Composite Thermal Insulation materials with fire-resistant surface (approx 0.3mm thick) on one face and having a thickness and density of a) 13mm / 58kg/m³ b) 19mm / 90kg/m³ c) 25mm / 71kg/m³ / Application : For external insulation of ventilation ductwork and pipework	Durkee (Wuhan) Insulation Material Co., Ltd., PRC	4/9/2018	September 2027	a) No assessment was made on the density and toxicity of smoke generated by the materials under fire conditions as that are not our requirement.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1064)	"Lucky-PIP" Pre-insulated Pipe System (Stainless Steel Jacket Grade 316) / Brand: Lucky-PIP / Model: CFC, HCFC, HCF Free Pre-insulated Pipe (Stainless Steel Jacket Grade 316) / Construction: Piping system comprising a basic carrier pipe, a metal outer jacket of minimum 0.5mm thick stainless steel, and an insulation of 10-400mm thick polyurethane foam (milky yellow, 48kg/m³) machine-injected between the carrier pipe and outer jacket. / Wall Penetration: The carrier pipe with a metal outer of 0.5mm thick stainless steel grade 316 and an insulation of 65mm thick polyurethane foam with density of 48kg/m³ filled between the carrier pipe and outer jacket. The whole assembly is supported by a G.l. C-channel with sizes of 100mm by 50mm by 5mm thick and held in position by steel clamps which was fixed to the C-channel by 2 nos. of M12 bolt and nuts located at nominal 300mm away from the concrete wall on both exposed and unexposed sides. The C-channel was hung to a supporting steel beam stand by M12 threaded rods. The surround section of approximately 300 mm deep which penetration through the wall frame is wrapped by 15 mm thick ceramic fibre with density of 128 kg/m³ and covered by cement sand grouting.	Link The Best Company Ltd., Hong Kong	5/11/2018	May 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) No assessment was made on whether the product materials used are CFC, HCFC, HCF free. c) This letter supersedes our letter of the same series dated 14.12.2017 on the same product.
Thermal Insulation (1065)	"Lucky-PIP" Pre-insulated Pipe System (Galvanized Steel Jacket) / Brand: Lucky-PIP / Model: CFC/HCFC/HCF Free Pre-insulated Pipe (Galvanized Steel Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outer jacket of minimum 0.5mm thick galvanised steel, and an insulation of 10-400mm thick polyurethane foam (milky yellow, 48kg/m³) machine-injected between the carrier pipe and outer jacket. / Wall Penetration: The carrier pipe with a metal outer of 0.5mm thick galvanised steel and an insulation of 65mm thick polyurethane foam with density of 48kg/m³ filled between the carrier pipe and outer jacket. The whole assembly is supported by a G.I. C-channel with sizes of 100mm by 50mm by 5mm thick and held in position by steel clamps which was fixed to the C-channel by 2 nos. of M12 bolt and nuts located at nominal 300mm away from the concrete wall on both exposed and unexposed sides. The C-channel was hung to a supporting steel beam stand by M12 threaded rods. The surround section of approximately 300 mm deep which penetration through the wall frame is wrapped by 15 mm thick ceramic fibre with density of 128 kg/m³ and covered by cement sand grouting.	Link The Best Company Ltd., Hong Kong	5/11/2018	May 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) No assessment was made on whether the product materials used are CFC/HCFC/HCF free. c) This letter supersedes our letter of the same series dated 31.1.2018 on the same product.
Thermal Insulation (1068)	"Kooltherm" HCFC Free Phenolic Foam Insulation with Aluminium Reinforced Foil Laminate / Brand Name: Kooltherm / Density: 37, 60, 80, 120 kg/m³ / Thickness: 25 mm / Material: HCFC free, closed cell rigid Phenolic foam insulation faced with aluminium reinforced foil laminate / Application: For the external insulation of ventilation pipework and ductwork	Kingspan Tarec Industrial Insulation NV, Belgium	14/11/2018	January 2028	a) No assessment was made on the toxicity of smoke generated by the material under fire.
Thermal Insulation (1070)	"ECO-PIP" Pre-insulated pipes (PIP) material for Pipe assembly of steel service pipe, PU terminal and casting / Brand : "ECO-PIP" / Thickness : 50 mm (PU terminal) / Casting : Galvanized sheet	Tai Shan Xian'Guang Building Material Co. Ltd	14/11/2018	December 2026	a) No assessment was made on density and toxicity of smoke generated by the material under fire. b) The packing of the product should bear the Brand Name of the product. c) This letter supersedes our previous one of the same series dated 6.11.2018.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1081)	insulation with a density of 40kg/m <sup>3</sup> bonded on one side with 0.2 mm "S-series" reinforced double	Huizhou Yong Liang Xinxing Building material Co., Ltd., Shenzhen, PRC	27/12/2018	September 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition as that is not our requirement.
Thermal Insulation (1084)	"GOODEVER PF" Phenolic Foam Insulation with Aluminium Foil Facing / Material: Phenolic foam insulation with a density of $40 \text{kg/m}^3$ bonded on one side with 0.2 mm "S-series" reinforced double sided aluminium foil facing material using Ps8109s adhesive / Thickness: 25 mm / Application: For external insulation of pipework and ductwork	Huizhou Yong Liang Xinxing Building material Co., Ltd., PRC	27/12/2018		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition as that is not our requirement.
Thermal Insulation (1085)	insulation with a density of 40kg/m <sup>3</sup> bonded on one side with 0.2 mm "S-series" reinforced double	Huizhou Yong Liang Xinxing Building material Co., Ltd., Shenzhen, PRC	27/12/2018	September 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition as that is not our requirement.
Thermal Insulation (1086)	"UniFiber®" Fiberglass Insulation Material with "PAL® SSF 515" Aluminium Foil Facing / Product Name & Material : "UniFiber®" fiberglass with 5-layer single sided "PAL® SSF 515" reinforced aluminium foil facing / Density / Thickness : 64 kg/m³ / 50 mm / Application: For external insulation of ventilating ductwork and pipework in ventilating systems	UniFiber Manufacturing Ltd., PRC	27/12/2018		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition as that is not our requirement.
Thermal Insulation (1088)	"PHENOTHERM TM" Phenolic Foam Insulation Supports c/w "PAL® DSF-Black 818" 9-Layer Double Sided Aluminium Foil Facing / Model : "PHENOTHERM TM" phenolic foam supports with "PAL® DSF-Black 818" double sided reinforced aluminium foil facing / Material : CFC and HCFC free phenolic foam insulation material with 9-layer double sided reinforced aluminium foil vapour barrier / Density 80 kg/m³ / Thickness : 25 mm / Application : Insulation supports for ventilation ductwork and pipework	Phenotherm Asia Ltd., PRC	24/1/2019		a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) The packing of the insulation materials should bear the Brand Name of the products. c) This letter supersede our previous one of the same series dated 16 January 2019. d) This assessment is subject to review by October 2028 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1098)	"Owens Corning" Fiberglass Insulation Duct Liner Board with Black Glass Tissue (BGT) Facing / Brand/Model " "Owens Corning" Fiberglas Duct Liner / Material : Fiberglas duct liner board with Black Glass Tissue (BGT) facing / Thickness / Density ; 25 mm / 32 kg/m³ 50 mm / 64 kg/m³ / Application : For internal lining of ventilating ductwork	Owens Corning (Guangzhou) Fiberglas Co., Ltd., PRC	17/4/2019	July 2023	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment letter supersedes our previous one of the same series dated 16.4.2014.) This assessment is subject to review by July 2023 or with the updating of the edition of the test standard.
Thermal Insulation (1099)	Phenotherm <sup>™</sup> Phenolic Foam Insulation Supports c/w PAL <sup>®</sup> DSF818 8-Layers Double Sided Aluminium Foil Facing, Insulation Support for Ventilation Ductwork and Pipework / Brand Name: Phenotherm <sup>™</sup> Phenolic Foam Insulation Supports c/w PAL <sup>®</sup> DSF818 8-Layers Double Sided Aluminium Foil Facing / Density: 80 kg/m³ / Thickness: 25 mm / Material: CFCs & HCFCs free phenolic foam insulation with 8-Layers Double Sided Reinforced Aluminium Foil Facing / Application: For the insulation supports of ventilation pipework and ductwork	Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	2/5/2019	November 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by November 2028 or with the updating of the edition of the test standard.
Thermal Insulation (1103)	"Durkflex FG" Nitrile Rubber Insulation Material / Brand Name: "Durkflex FG" / Material: Closed cell nitrile based elastomeric thermal insulation material comprising of nitrile butadiene rubber / PVC and with a colour reference "Black" / Thickness and Density: 9 mm and 62 kg/m <sup>3</sup>	Durkee (Wuhan) Insulation Material Co., Ltd, P.R.C.	9/5/2019	January 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) The product shall bear the marking "Durkflex® FG" as a means of identification. c) This assessment letter supersedes our previous one of the same series dated 5.7.2011. d) This assessment is subject to review by January 2029 or with the updating of the edition of test standard.
Thermal Insulation (1104)	"UniFiber" Rockwool Insulation with Density 100 kg/m³ Thickness 50mm / Product Name: "UniFiber" Rockwool Insulation / Material: Rockwool without facing / Thickness / Density: 50 mm / 100 kg/m³ / Application: For internal lining of ventilating ductwork	UniFiber Manufacturing Ltd., PRC	16/5/2019	February 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) The product itself has no markings. However, details such as brand name, density and thickness are to be marked on its packing. c) This assessment letter supersedes our previous one of the same series dated 11.8.2016. d) This assessment is subject to review by February 2029 or with the updating of the edition of the test standard.
Thermal Insulation (1114)	P-flex® Class '0' Flexible Elastomeric Insulation c/w PAL® DSF818 Class '0' Aluminium Foil Facing for Ductwork and Pipework Insulation / Brand Name: P-flex® Class '0' Flexible Elastomeric Insulation c/w PAL® DSF818 Class '0' Aluminium Foil Facing / Density: 50 - 65 kg/m³ / Thickness: 25 mm / Material: P-flex® Class '0' Flexible Elastomeric Insulation with PAL® DSF818 8-layers double sided reinforced Aluminium Foil Facing / Application: For the insulation of ventilation pipework and ductwork	Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	30/5/2019	July 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by July 2028 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1119)	"Insulflex" Closed Cell Nitrile Rubber Insulation Foam / Brand Name: Insulflex / Density: 65 - 80 kg/m³ / Thickness: 32 mm / Material: Closed Cell Nitrile Rubber Insulation Foam / Application: For the insulation of ventilation pipework and ductwork	Insulflex Corporation SDN BHD, Malaysia	9/7/2019	May 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by May 2028 or with the updating of the edition of the test standard.
Thermal Insulation (1126)	"Armafix" Insulated Pipe Hanger / Brand Name : "Armafix" / Material : Armaflex insulation embedded PUR loading segments and covered with the outer shell metal jacket / Application : Insulation support in ventilating system	Armacell (Guangzhou) Limited, PRC	19/7/2019	April 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) The product should bear appropriate marking as a means of identification
Thermal Insulation (1127)	"INSUL-PHEN" CW701 Self-Adhesive Glass Cloth Aluminium Foil / Brand Name: INSUL-PHEN "CW-701" / Thickness: 0.24 mm / Material: 240 micro thick glass cloth aluminium foil on one side and the other side coated with acrylic adhesive / Application: Sealing of joints in ventilation duct work or pipe work	INSUL-PHEN Insulation Ltd., PRC / Jiangyin Meiyuan Industries Corporation	26/7/2019	February 2024	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by Feb. 2024 or with the updating of the edition of the test standard.
Thermal Insulation (1128)	"SEKISUI" Thermobreak Sheet Closed Cell Polyefin Foam with Reinforced Aluminium Foil And backed with Pressure Sensitive Adhesive Tape / Brand/Model: "Thermobreak" / Material: A closed cell polyethylene foam insulation material, in sheet form with applied reinforced aluminium foil and backed with pressure sensitive adhesive tape / Thickness / Density: 12mm or 25 mm / 24 - 50 kg/m³ / Application: For external insulation of ventilating ductwork	Thai Sekisui Foam Co., Ltd., Thailand	26/7/2019	November 2024	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment is subject to review by November 2024 or with the updating of the edition of the test standard.
Thermal Insulation (1130)	"K-Flex" Insulated Pipe Support / Brand Name: "K-Flex" Pipe Support / Material: Insulated pipe support comprising of rigid polyurethane with a density of 160 - 250 kg/m³, surrounded by 25mm thick K-Flex flexible elastomeric insulation foam laminated with 0.1 mm thick double-sided aluminium foil facing and K-Flex protective IN cladding, bonded with K - Flex 428 glue. / Application: Insulation support for pipe work in ventilating system	L' Isolante K-Flex (Suzhou) Company Limited, PRC	29/7/2019	February 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This letter supersedes our previous one of the same series dated 16.7.2019
Thermal Insulation (1135)	"EVERTHERM" Phenolic Foam Insulation Materials (40Kg/m³) for Pipework and Distribution Ductworks / Brand/Model : "Evertherm " phenolic foam with aluminium foil facing / Material : A closed cell phenolic foam insulation material with aluminium foil facing / Thickness / Density : 25 mm / 40 kg/m³ / Application : For external insulation of ventilating ductwork and pipework	Evertherm Insulation Hong Kong Ltd., HK	19/8/2019	May 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment is subject to review by May 2029 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1145)	"ECO-PIP" Pre-insulated pipes (PIP) material for Pipe assembly of steel service pipe, PU terminal and casting / Brand : "ECO-PIP" / Thickness : 50 mm (PU terminal) / Casting : Galvanized sheet	Tai Shan Xian'Guang Building Material Co. Ltd	24/10/2019	December 2026	a) No assessment was made on density and toxicity of smoke generated by the material under fire. b) The packing of the product should bear the Brand Name of the product. c) This letter supersedes our previous one of the same series dated 14.11.2018. d) This assessment is subject to review by December 2026 or with the updating of the edition of the test standard.
Thermal Insulation (1151)	"Arma-Check Silver" Flexible Elastomeric Insulation / Brand Name: Arma-Chek Silver" / Material: A multi-layer laminate of aluminium, UV protective PET layer and a polymer backing / Application: Cover for flexible elastomeric insulation for pipework and metallic ducts in ventilating systems.	Armacell (GuangZhou) Limited	8/11/2019	April 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.
Acoustic Insulation (1152)	"SNAP Acoustics" SNAP/SIL/MPF Duct Silencer with Fibreglass Infill protected by Melinex Polyester Film / Model: SNAP/SIL/MPF Duct Silencer with Fibreglass Infill protected by Melinex Film / Construction: 0.75 mm thick perforated galvanized steel sheets with "Owens Corning" (EcoTouch® blanket Fibreglass Insulation) of density 16 - 48 kg/m³ as the infill material wrapped with 12 micron "Melinex" polyester facing; 0.75 mm thick non-perforated galvanized steel sheet perimeter casing.	NAP Acoustics (Far East) Limited	28/10/2019	October 2028	a) The infill material of the attenuator shall conform to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96.
Acoustic Insulation (1153)	"SNAP Acoustics" SNAP/LIN/MPF Acoustic Lining with Fibreglass Infill protected by Melinex Polyester Film / Model: SNAP/LIN/MPF Acoustic Lining with Fibreglass Infill protected by Melinex Film / Construction: 0.75 mm thick perforated galvanized steel sheets with "Owens Corning" (EcoTouch® blanket Fibreglass Insulation) of density 16-48 kg/m³ as the infill material wrapped with 12 micron "Melinex" polyester facing; 0.75 mm thick non-perforated galvanized steel sheet perimeter casing.	NAP Acoustics (Far East) Limited	28/10/2019	October 2028	a) The infill material of the attenuator shall conform to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96.
Acoustic Insulation (1154)	"SNAP Acoustics" SNAP/LIN/FT Acoustic Lining with Fibreglass Infill protected by Fibreglass Tissue / Model: SNAP/LIN/FT Acoustic Lining with Fibreglass Infill protected by Fibreglass Tissue / Construction: 0.75 mm thick perforated galvanized steel sheets with "Owens Corning" (EcoTouch® blanket Fibreglass Insulation) of density 16 - 48 kg/m³ as the infill material wrapped with 0.15mm fiberglass tissue; 0.75 mm thick non-perforated galvanized steel sheet perimeter casing.	NAP Acoustics (Far East) Limited	28/10/2019	October 2028	a) The infill material of the attenuator shall conform to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96.
Acoustic Insulation (1155)	"SNAP Acoustic" SNAP/SIL/FT Duct Silencer with Fibreglass Infill protected by Fibreglass Tissue / Model: SNAP/SIL/FT Duct Silencer with Fibreglass Infill protected by fiberglass tissue / Construction: 0.75 mm thick perforated galvanized steel sheets with "Owens Corning" (EcoTouch® blanket Fibreglass Insulation) of density 16 - 48 kg/m³ as the infill material wrapped with 0.15mm fibreglass tissue; 0.75 mm thick non-perforated galvanized steel sheet perimeter casing.	NAP Acoustics (Far East) Limited	28/10/2019	October 2028	a) The infill material of the attenuator shall conform to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Aluminium Foil Tape (1158)	"INSUL-PHEN" CW FRBT Self-Adhesive Black Lacquered Aluminium Foil Tape / Brand Name: INSUL-PHEN "CW FRBT" / Thickness: 30 µm / Material: 30 micro thick black lacquered aluminium foil coated on one side with flame-retardant acrylic adhesive / Application: Sealing of joints in ventilation duct work or pipe work	INSUL-PHEN Insulation Ltd., PRC / Jiangyin Meiyuan Industries Corporation	20/11/2019	April 2024	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The packing of the insulation materials should bear the Brand name of the products. c) This assessment is subject to review by Apr. 2024 or with the updating of the edition of the test standard.
Acoustic Insulation (1159)	Barkilox 10 Elactoriorio morniar incalation, Braha Hamo. Barkilox 10 / Material. Closed	Durkee (Wuhan) Insulation Material Co., Ltd, P.R.C.	21/11/2019	January 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) The product shall bear the marking "Durkflex® FG" as a means of identification.
Thermal Insulation (1161)	"Best Bond" FHPEVA Class One Pipe Support / Model : "Best Bond" FHPEVA / Construction : Split composite insulation ring comprising high pressure foamed, high density polyethylene vinyl acetate (PEVA) / Density : 556 kg/m³ / Application : As external insulation ring for pipe work in ventilating system	Meriton East (HK) Ltd., PRC	20/12/2019	September 2024	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment letter supersedes our previous one of the same series dated 19.1.2015.
Thermal Insulation (1173)	"Phenotherm®" Phenolic Foam Insulation Support c/w Density 120kg/m³ 25mm thickness and DSF-White 818 Aluminum Foil Facing / Model : Phenotherm® / Material : A composite rigid phenolic foam insulation material of 120kg/m³ density with double sided reinforced aluminum foil facing / Insulation Thickness : 25 mm / Application : For insulation support in ventilation system	Phenotherm Asia Ltd	1/4/2020	March 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1177)	"Phenotherm® Phenolic Foam Insulation in Density 60kg/m³ 20mm thickness c/w Embossed Aluminum Foil Facing for Ventilation Ductwork / Model : Phenotherm® phenolic foam / Material : A composite insulation panel comprising a phenolic foam core having a density of 60kg/m³ bonded on both sides with white glass tissue and embossed aluminum foil / Overall Thickness : 20 mm /Application : For external insulation of ductwork in ventilation system	Donnguan Juwan Rubber & Plastic Products Co., Ltd, PRC	21/5/2020	March 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER /	FSD	DATE TO	Remarks
		AUTHORIZED	ACCEPTANCE	REVIEW (Subject	
		SUPPLIER	DATE	to Renewal)	
Acoustic insulation (1188)	"SNAP Acoustic" SNAP/SIL/FT (Galvanized Steel/Stainless Steel) Duct Silencer with Fibreglass infill protected by Fibreglass Tissue / Model : a) SNAP/SIL/FT Duct Silencer (Galvanized Steel) b) SNAP/SIL/FT Duct Silencer (stainless Steel) / Construction : a) 0.5 mm thick perforated galvanized steel sheets front and back skins with fibreglass with 40 kg/m3 infill material wrapped by 0.15 mm thick black tissue; 0.8 mm thick galvanized steel perimeter casing b) 0.5 mm thick perforated stainless steel sheets grade 304 front and back skins with fibreglass with 40 kg/m3 infill material wrapped by 0.15 mm thick black tissue; 1.0 mm thick stainless steel sheet grade 304 perimeter casing	NAP Acoustics (Far East) Ltd.	26/5/2020	July 2026	a) The fibreglass infill material of the silencer shall be of a type conforming to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96. b) The silencer including internal component should not cause restriction of the air stream during the operating smoke extraction system. c) This assessment is subject to review by Jul 2026 or with the updating of the edition of the test standard.
Acoustic insulation (1191)	"P-flex®n Class "1" Flexible Elastomeric Insulation (Off-white Colour) / Model : P-flex® / Material : An off-colour flexible elastomeric closed cell insulation material having a nominal density of 45-65 kg/m³ / Insulation Thickness : 13 mm / Application : For external insulation of pipework	Dogguan Juwan Rubber & Plastic Products Co., Ltd	4/6/2020	June 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Acoustic insulation (1194)	"SNAPAcoustics" SNAP/SIL/FT (Galvanized Steel/Stainless Steel) Duct Silencer with Fibreglass infill protected by Fibreglass Tissue / Model: a) SNAP/SIL/FT Duct Silencer (Galvanized Steel) b) SNAP/SIL/FT / Duct Silencer (Stainless Steel) / Construction: a) 0.5 mm thick perforated galvanized steel sheets front and back skins with fibreglass with 40 kg/m³ infill material wrapped by 0.15 mm thick black tissue; 0.8 mm thick galvanized steel sheet perimeter casing b) 0.5 mm thick perforated stainless steel sheets grade 304 front and back skins with fibreglass with 40 kg/m³ infill material wrapped by 0.15 mm thick black tissue; 1.0 mm thick stainless steel sheet grade 304 perimeter casing	NAP Acoustics (Far East) Ltd.	8/6/2020	July 2026	a) The fibreglass infill material of the silencer shall be of a type conforming to the requirements for internal insulation stipulated in Part XI of the FSD Circular Letter No. 4/96. b) The silencer including internal component should not cause restriction of the air stream during the operating smoke extraction system. c) This assessment is subject to review by Jul 2026 or with the updating of the edition of the test standard. d) This letter superseded our previous letter issued on 26.5.2020
Thermal Insulation (1197)	"AFICO" Fiberglass Insulation with "FRK" Aluminium Foil Facing / Product Name : "AFICO" Fiberglass Insulation with "FRK" Aluminium Foil Facing / Material : Comprising an aluminium foil laminate faced glass fiber insulation product, consist of heavy density fiberglass insulation with FRK aluminium foil facing / Insulation Thickness : 50 mm/ 64 kg/m <sup>3</sup>	Arabian Fiberglass Insulation Co., Ltd.	10/7/2020	June 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) The product itself has no marking, however, details such as brand name, density and thickness are to be marked in its packing. c) Valid test reports shall be maintained
Thermal Insulation (1198)	"PAL®" AT38B Class '0' Black Aluminium Foil for Ventilating Systems / Model : "PAL®" AT38B / Material : 38 micron thick aluminium foil with a black coating and coated on one side with synthetic rubber resin adhesive / Application : Sealing of joints for insulation used in ventilating system	Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	10/7/2020	April 2025	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment letter supersedes our previous one of the same series dated 21.9.2015. c) This assessment is subject to review by April 2025 or with the updating of edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1204)	"Phenotherm" Phenolic Foam Insulation Density 40kg/m³ 25mm thickness c/w PAL® DSF 818 Class '0' 8-layers Double-sided Aluminum Foil Facing / Model : Phenotherm® phenolic foam with "PAL® DSF 818" double sided aluminium foil facing / Material : Closed cell phenolic foam insulation material having a thickness of 25mm and a density of 40kg/m³ "PAL® DSF 818" Class '0' 8-layers double sided aluminium foil vapour barrier of approx. 0.3mm thick	Phenotherm Asia Ltd	21/7/2020	July 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by July 2025. d) This letter superseded our previous letter under ref. FP(LC) 31714 dated 13 July 2020 for amendment made for reference no. of test reports.
Thermal Insulation (1205)	Phenotherm® Phenolic Foam Insulation Support c/w Density 80kg/m³ 25mm thickness "PAL® DSF-White 818" Class '0' Double Sided Reinforced Aluminium Foil Facing / Model : "Phenotherm" / Model : "Phenotherm" / Material : High density rigid phenolic foam insulation material of 80 kg/m³ density with "PAL® DSF-White 818" Class "0" 9-layers double sided reinforced aluminium foil facing / Insulation Thickness : 25 mm / Application : For external insulation support in ventilation ductwork and pipework	Phenotherm Asia Ltd, PRC	21/7/2020	June 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) The packing of the material should bear the Brand Name of the product.
Thermal Insulation (1210)	"AFICO" Type 320 Fiberglass with FRK Aluminium Foil Facing / Model: "AFICO" Type 320 Faced Duct Wrap / Material: Uniformly textured inorganic glass fibers bonded together by a thermosetting resin and faced on one side with an aluminium foil / Thickness/ Density: 25mm/ 32kg/m <sup>3</sup>	Arabian Fiberglass Insulation Co., Ltd., Saudi Arabia	4/8/2020	July 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by material under fire.
Thermal Insulation (1213)	"TANDA" R100 Rockwool Thermal/Acoustic Insulation Material / Product Name : TANDA R100 Rockwool / Material : Yellow rockwool board having a density of 100 kg/m³ and thickness of 50 mm / Application : For internal and external insulation of ventilating ductwork	Dongguan Penghua Thermal Material Ltd., PRC	7/8/2020	April 2025	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment letter supersedes our previous one of the same series dated 29.5.2017.
Thermal Insulation (1215)	"AFICO" Type 480 Fiberglass Duct Liner with Black Glass Tissue (BGT) Facing for Internal Ductwork Insulation / Model : "AFICO" Type 480 Duct Liner / Material : Uniformly textured inorganic glass fibers bonded together by a thermosetting resin and faced on one side with a black glass tissue / Thickness/ Density : 50mm/ 48kg/m <sup>3</sup>	Arabian Fiberglass Insulation Co., Ltd., Saudi Arabia	11/8/2020	July 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1224)	"WING ONN PF" Phenolic Foam Insulation (thickness 50 mm) with Aluminium Foil Facing / Material: Phenolic foam insulation with a density of 40kg/m³ bonded on one side with 0.2 mm "Sseries" reinforced double sided aluminium foil facing material using Ps8109s adhesive / Thickness: 50 mm / Application: For external insulation of pipework and ductwork	Huizhou Yong Liang Xinxing Building material Co., Ltd., Shenzhen, PRC	11/9/2020	August 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition as that is not our requirement. b) This assessment is subject to review by August 2025 or with the updating of the edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1228)	"Welaire®" Polyurethane / Brand : Welaire® / Material : Close Cell Polyurethane / Thickness : 25 mm / Application : Internal insulation for panel	Zhongshan Saiver Welaire Air Conditioning Equipment Co., Ltd.	23/9/2020	August 2023	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.
Thermal Insulation (1230)	"ECO-PIP" Pre-insulated pipes (PIP) material for Pipe assembly of steel service pipe, PU (thickness 50mm) terminal and casting / Brand Name: "ECO-PIP" / Thickness: 50 mm (PU terminal) / PU Foam Density: 48kg/m³ / Thickness of Aluminium Steel Jacket: 0.8mm	TaiShan XianGuang Building Material Co., Ltd. PRC	29/9/2020	August 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) The packing of the product shall bear with appropriate identification markings . c) This assessment is subject to review by August 2025 or with the updating of the edition of the test standard
Acoustic Insulation (1237)	"LAH" Glasswool Acoustic Lining / Brand Name : LAH / Density : 32/48 kg/m³ / Thickness : 50 mm / Material : Glasswool board/panel / Application : As internal and external acoustic lining of ductwork	Guangdong QingYuan Han Jang Glass Cotton Technology Co. Ltd., PRC	23/10/2020	April 2030	a) No assessment was made on the density and toxicity of smoke generated by the material under fire; b) The packing of the insulation materials should bear the Brand name of the the products; c) Valid certificate of ISO 9001 shall be maintained; and d) This assessment is subject to review by April 2030 or with the updating of edition of the test standard.
Acoustic Insulation (1238)	"LAH" Rockwool Acoustic Lining / Brand Name : LAH / Density : 60/80 kg/m³ / Thickness : 50 mm Material : Rockwool board/panel / Application : As internal and external acoustic lining of ductwork	Guangdong Jiefu Energy Saving Technology Co., Ltd., PRC	23/10/2020	August 2030	a) No assessment was made on the density and toxicity of smoke generated by the material under fire; b) The packing of the insulation materials should bear the Brand name of the products; c) Valid certificate of ISO 9001 shall be maintained; and d) This assessment is subject to review by Aug. 2030 or with the updating of the edition of the test standard.
Acoustic Insulation (1243)	"P-flex® ' Class '0' Flexible Elastomeric Insulation in Density 50-65kg/m³ 50mm thickness c/w PAL® DSF-Black 818 Class '0' 9-layers Double-sided Reinforced Aluminium Foil Facing / Model : P-flex® Elastomeric insulation with PAL® DSF Black 818 double-sided aluminium foil facing / Material : Flexible elastomeric insulation material having a density of 50-65 kg/m³ PAL® DSF Black 818 Class '0' 9-layers double-sided reinforced aluminium foil facing / Insulation Thickness : 50 mm / Application : For insulation of ventilating ductwork and pipwork in ventilation system	Dongguan Juwan Rubber & Plastic Products Co., Ltd	28/10/2020	September 2025	A) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1245)	"BEPCOPIPIE" GI/SS Pre-insulated Pipe / Brand : "BEPCOPIPE" / Model : "BEPCOPIPE-GI" CFC, HCFC, HCF free Pre-insulated Pipe (galvanized pipe) / Construction : Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.6mm thick galvanized steel, and insulation of 28-50mm thick polyurethane foam (60 kg/m³) machine -injected between the carrier pipe and outer jacket.	Panyu Chu Kong Steel Pipe Co. Ltd	12/11/2020		a) Valid test reports shall be maintained. b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by October 2025. d) No assessment was made on the test report no. G19719FU190128 of 17.10.2019 by Fugro Technical Services (Guangzhou) Limited on the fire resistance performance of the pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987. The department is not the authority in respect of the fire resistance for building elements and /or enclosure around services based in BS 476: Part 20:1987 to form fire compartment.
Thermal Insulation (1246)	"P-flex® ' Class '0' Flexible Elastomeric Insulation in Density 50-65kg/m³ 50mm thickness c/w PAL® DSF-Black 818 Class '0' 9-layers Double-sided Reinforced Aluminium Foil Facing / Model : P-flex® Flexible Elastomeric insulation with PAL® DSF Black 818 double-sided aluminium foil facing / Material : Flexible elastomeric insulation material having a density of 50-65 kg/m³ PAL® DSF Black 818 Class '0' 9-layers double-sided reinforced aluminium foil facing / Insulation Thickness : 50 mm / Application : For insulation of ventilating ductwork and pipework in ventilating system	Dongguan Juwan Rubber & Plastic Products Co., Ltd	12/11/2020		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by October 2025. d) This letter supersedes our previuos letter dated 28.10.2020.
Thermal Insulation (1251)	"Teembase" Pre-insulated Pipe System / Product : "Teembase" Pre-insulated Pipe / Construction : Piping system comprising a basic carrier pipe, a metal outer jacket of minimum 0.6 mm thick Stainless Steel, Galvanized Steel or 0.8 mm thick Aluminium Sheet and an insulation of polyurethane foam (48 kg/m³) machine-injected between the carrier pipe and outer jacket. / Thickness of polyurethane foam 15mm, 50-125mm	New Teembase Metal (Shenzhen) Company Limited	27/11/2020		a) Valid certificate of ISO 9001 shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the assembly under fire; c) The pre-insulated pipe jacket shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 20.7.2018; and e) This assessment is subject to the review by June 2030 or with the updating of the edition of the test standard
Thermal Insulation (1253)	"GOODEVER" Phenolic Foam Insulation with density $40 \text{kg/m}^3$ and Aluminium Foil Facing / Brand: "GOODEVER" / Material: Phenolic foam insulation with a density of $40 \text{kg/m}^3$ bonded on one face with double sided aluminium foil facing material using PS 8109S adhesive. / Thickness: 15 mm - 150 mm / Application: For external insulation of pipework and ductwork	Beijing Goodever XinXing Building Material Co., Ltd. Shenzheng Branch Office	4/12/2020		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1256)	Sekisui "Thermobreak" Thermal Insulation / Brand : "SEKISUI Thermobreak" / Material : Closed Cell Polyolefin Foam with reinforced aluminium foil and backed with pressure sensitive adhesive tape, with density of 25 kg/m³ / 27 kg/m³ / Insulation Thickness : 12 mm/ 25 mm/ 50mm / Application : For external insulation of ductwork and pipework	Thai Sekisui Foam Company Limited, Thailand	7/12/2020	November 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1262)	"P-flex <sup>®</sup> " Class "0" Flexible Elastomeric Insulation Off-white Colour in Density 50-65kg/m³ 50mm thickness / Model : P-flex <sup>®</sup> Class "0" Flexible Elastomeric Insulation, Off-White Colour Material / Material : An off-white colour flexible elastomeric insulation with built-in vapour barrier having a nominal density of 50-65 kg/m³ / Insulation Thickness : 50 mm / Application : For external insulation of pipework	Dogguan Juwan Rubber & Plastic Products Co., Ltd	8/1/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1263)	"P-flex®" Class "0" Flexible Elastomeric Insulation in Density 50-65kg/m³ 50mm thickness / Brand : P-flex® Class "0" / Material : A CFFs and HCFCs free flexible closed-cell elastomeric insulation in black colour / Thickness/Density : 50 mm/ 50-65 kg/m³ / Application : For insulation of ventilation ductwork and pipework	Dogguan Juwan Rubber & Plastic Products Co., Ltd	8/1/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1264)	"Durkflex <sup>®</sup> FG" 19mm Thermal Insulation / Brand Name : "Durkflex <sup>®</sup> FG" / Material : Black coloured closed-cell elastomeric thermal insulation material comprising of Nitrile Butadiene rubber (NBR) / Thickness and Density : 19 mm and 53kg/m³ approximately	Durkee (Wuhan) Insulation Material Co., Ltd, P.R.C.	31/12/2020		a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions. b) The product shall bear the marking "Durkflex® FG" as a means of identification.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1270)	"Lucky-PIP" Pre-insulated Pipe System (Aluminium Jacket) / Brand: Lucky-PIP / Model: CFC, HCFC, HCF free Pre-insulated Pipe (aluminium jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outer jacket of minimum 0.5 mm thick galvanized steel, and insulation of 10mm thick polyurethane foam (milky yellow, 48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Link The Best Company Ltd.	22/2/2021	June 2023	a) Valid test reports shall be maintained. b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) No assessment was made on the test report no. R11J15 of 13.1.2012 by Research Engineering Development Facade Consultant Limited on the fire resistant performance of pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987. This department is not the authority in respect of the fire resistance for building elements and /or enclosure around services based in BS 476: Part 20:1987 to form fire compartment. d) No assessment was made on the set of laboratory record sheet no. from 398327 to no. 398338 of 19.4.2018 regarding BS 476: Part 6: 1989+A1:2009 and BS 476: Part 7:1997, with covering letters issued by Exova Warringtonfire which are not the assessment criteria.
Thermal Insulation (1275)	"Owens Corning Fibreglass Insulation" Laminated with black DSF (Blanket/Board & Pipe Type) / Brand/Model: "Owens Corning Fibreglass Insulation" Black DSF (763 Black) Faced Board/Pipe/Blanket type / Material: Fibreglass blanked/board & pipe type insulation material laminated with black colour double sided aluminium foil (763 Black) / Density 24 - 48 kg/m³ (Blanket Type) 32 - 64 kg/m³ (Board & Pipe Type) / Thiskness 25 - 50 mm (Blanket/Board & Pipe Type) / Application: For internal lining or external insulation of ductwork and pipework used in ventilation system	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	23/4/2021	April 2024	a) Valid certificate shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the assembly under fire; c) The insulation of blanket/board/pipe shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 17.5.2016; and e) This assessment is subject to review by Apr 2024 or with the updating of the edition of the test standard
Thermal Insulation (1276)	"Owens Corning Fibreglass Insulation" Laminated with FSK (Blanket Type) / Brand/Model: "Owens Corning Fibreglass Insulation" FSK Faced Blanket Type material / Material: Fiberglass blanket type insulation material laminated on one side with FSK vapour barrier / Density 24 - 48 kg/m³ / Thickness 25 - 50 mm / Application For external insulation of ductwork used in ventilation system	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	26/4/2021	July 2028	a) Valid certificate shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the assembly under fire; c) The insulation of blanket shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 9.7.2018; and e) This assessment is subject to review by July 2028 or with the updating of the edition of the test standard

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER /	FSD	DATE TO	Remarks
		AUTHORIZED	ACCEPTANCE	REVIEW (Subject	
		SUPPLIER	DATE	to Renewal)	
Thermal Insulation (1277)	"Owens Corning Fibreglass Insulation" Laminated with DSF 763 Faced (Blanket Type) / Brand/Model: Owens Corning Fibreglass Insulation DSF 763 Faced Blanket Type Material / Material: Fibreglass blanket type insulation material laminated on one side with DSF (Lamtec-763) double sided aluminium foil / Density 24 - 48 kg/m³ / Thickness 25 - 50 mm / Application For external insulation of ductwork used in ventilation system	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	26/4/2021	July 2028	a) Valid certificate shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the assembly under fire; c) The insulation of blanket shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 20.2.2019; and e) This assessment is subject to review by July 2028 or with the updating of the edition of the test standard
Thermal Insulation (1278)	"Owens Corning Fibreglass Insulation" Laminated with DSF 763 (Faced Board/Pipe Type) / Brand/Model: Owens Corning Fibreglass Insulation DSF 763 Faced Board/Pipe Type Material / Material: Fibreglass board & pipe type insulation material laminated on one side with DSF (Lamtec-763) double sided aluminium foil / Density 32 - 64 kg/m³ / Thickness 25 - 50 mm / Application For external insulation of ductwork and pipework used in ventilation system	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	26/4/2021	July 2028	a) Valid certificate shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the assembly under fire; c) The insulation of board/pipe shall bear appropriate marking of the certification body and trademark for identification purpose; d) This assessment letter supersedes our previous one of the same series dated 8.12.2020; and e) This assessment is subject to review by July 2028 or with the updating of the edition of the test standard.
Thermal Insulation (1282)	"AFICO" Type 640 Fibreglass Insulation in Density 64kg/m³ 50mm thickness c/w PAL® DSF 818 Class '0' Double-sided Aluminium Foil Facing / Product Name : AFICO Board Insulation and Heavy Density Pipe Insulation / Material : Fiberglass insulation with PAL DSF818 Class '0' double sided aluminium foil vapour barrier / Thickness/ Density 50mm/ 64 kg/m³	Arabian Fiberglass Insulation Company Ltd (AFICO)	18/5/2021	April 2026	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1283)	"ALinks-PIP" Pre-insulated Pipe / Brand: "ALinks-PIP" / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of (i) minimum 0.8mm thick galvanized steel; or (ii) minimum 0.8mm thick stainless steel; or (iii) minimum 0.8mm thick aluminium; and insulation of 50mm thick polyurethane foam (48-60 kg/m³) with fire retardant of Triethl Phosphate, machine-injected between the carrier pipe and outer jacket.	Fortune Links Hong Kong Limited	18/5/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire; c) This assessment is subject to review by March 2026. d) No assessment was made on the test report no. G208575FU206144 of 9.9.2012 by Furgo Technical Services (Guangzhou) Limited on the fire resistance performance of the pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987. This department is not the authority in respect of the fire resistance for building elements and /or enclosure around services based in BS 476: Part 20:1987 to form fire compartment.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1289)	"ROCWOOL " THERMAWOOL DSF (TS-838) / Brand Name : "Rockwool" Thermalwool DSF (TS-838) / Material : Glasswool blanket type insulation material laminated with silver colour double sided aluminum foil (TS-838) / Thickness : 25 mm - 50 mm / Density : 32 kg/m³ - 48 kg/m³	Rockwool Firesafe Insulation (Guangzhou) Co., Ltd	4/6/2021		a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment is subject to review by January 2031 or with the updating of the edition of test standard. c) Our previous letter under the same reference dated 22 February 2021 is <a href="superseded">superseded</a> by this letter.
Thermal Insulation (1294)	"BEPCOPIPE" SS and AL Pre-insulated Pipe / Brand: "BEPCOPIPE" / Model: (1) "BEPCOPIPE-SS"; and (2) "BEPCOPIPE-AL" / Construction: (1) Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.6mm thick stainless steel, and insulation of 50mm thick polyurethane foam (48 kg/m³) machine-injected between the carrier pipe and outer jacket; and (2) Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.8mm thick aluminium, and insulation of 50mm thick polyurethane foam (48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Co. Ltd	8/6/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1295)	"Armaflex Duct" Nitrile Based Elastomeric Insulation / Brand: "Armaflex Duct" / Thickness: 25mm / Material: Glass fabric reinforced aluminum foil covered on Armaflex closed cell nitrile based elastomeric insulation, having a density of 65kg/m <sup>3</sup>	Armaflex (Guangzhou) Limited, P.R.C.	29/6/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Thermal Insulation (1297)	"K-Flex Class 0" Elastomeric Insulation Materials for Insulation of Ventilation Ductwork or Pipework / Brand: K-Flex ST / Material: Black colour closed cell, nitrile rubber based elastomeric insulation foam products having density of 65 kg/m³ approx, tested use K-414 glue / Insulation Thickness: 6 mm, 10mm, 13mm, 19 mm, 25 mm, 32 mm, 40 mm, and 50 mm / Application: For internal lining or external insulation of ductwork and pipework	L'Isolante K-Flex (Suzhou) Company Limited	29/6/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1298)	"K-Flex Class 1" Elastomeric Insulation Materials for Insulation of Ventilation Ductwork or Pipework / Brand : K-Flex Class 1 / Material : Black colour NSR based elastomeric insulation foam closed cells having density of 65 kg/m³ approx, tested use K-414 glue / Insulation Thickness : 6 mm to 50 mm / Application : For external insulation of ductwork and pipework with all thickness ≤ 50mm	L'Isolante K-Flex (Suzhou) Company Limited	29/6/2021	June 2026	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. C) This assessment is subject to review by June 2026. d) No assessment was made on the set of test report nos. AJFS2007005422RS, AJFS2007005423RS, AJFS2007005424RS, AJFS2007005425RS, AJFS2007005426RS, AJFS2007005426RS, AJFS2007005427RS, AJFS2007005428RS and AJFS2007005429RS of 23.7.2020 by SGS-CSTC Co., Ltd. Anji Branch on test standard of BS 476 Part 6:1989+A1:2009 (enclosed in your letter dated 20.10.2020) which is not the assessment criteria in this application.
Thermal Insulation (1304)	"Lucky-PIP" Pre-insulated Pipe System (Aluminium Jacket) / Brand: Lucky-PIP / Model: CFC, HCFC, HCF Free Pre-insulated Pipe (Aluminium Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.6mm thick aluminium sheet and insulation of 10-400mm thick polyurethane foam (milky yellow, 48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Link The Best Company Ltd.	22/7/2021	June 2023	a) Valid test reports shall be maintained. b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) No assessment was made on the test report no. R11J15 of 13.1.2012 by Research Engineering Development Facade Consultant Limited on the fire resistance performance of the pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987. This department is not the authority in respect of the fire resistance for building elements and /or enclosure around services based in BS 476: Part 20:1987 to form fire compartment. d) This assessment is subject to review by June 2023.
Thermal Insulation (1305)	"P-flex®" Class "0" Flexible Elastomeric Insulation in Density 50-65kg/m³ 50mm thickness / Brand : P-flex® Class "0" / Material : A CFCs and HCFCs free flexible closed-cell elastomeric insulation in black colour / Thickness/Density : 50 mm/ 50-65 kg/m³ / Application : For insulation of ventilation ductwork and pipework	Dogguan Juwan Rubber & Plastic Products Co., Ltd	12/8/2021	November 2025	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Sound Attenuator (1326)	"Vibro-Acoustics" Sound Attenuator / Brand and Model : Vibro-Acoustics / RLC Series	Dongguan Luen Wah Metal Products Co., Ltd.	10/11/2021	November 2026	

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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Thermal Insulation (1327)	"Owens Corning QUIETR" Acoustic Duct Liner Fiberglass Insulation / Brand/ Model: Owens Corning Quietr acoustic duct liner fiberglass insulation / Material: Fiberglass insulation material / Thickness / Density: 25mm / 48 kg/m³ / Application: For internal lining of ventilating ductwork	Owens Corning Mexico, S. De R.L De C.V	10/11/2021	October 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition
Thermal Insulation (1330)	"BBS" Rockwool Insulation for Use in Ventilating System / Brand : BBS / Material : A light weight thermal insulation material with density 40 and 160 kg/m3 and thickness of 50mm / Application : For internal and external insulation of ventilating ductwork	Juneng Insulation Materials Co., Ltd.	22/11/2021		a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.
Thermal Insulation (1332)	"TANDA R140" Rockwool Insulation for use in Ventilating System / Brand Name: "TANDA R140" Rockwool / Material: A yellow rockwool board using heat cured resin as fibre binding agent / Insulation Thickness: 50 mm approx. / Density: 140 kg/m³ approx. / Application: For internal and external insulation for ductwork in ventilation system	Tanda International Co., Ltd.	30/12/2021		a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the product under fire.
Thermal Insulation (1334)	"BBS" Rockwool Insulation for Use in Ventilating System / Brand : BBS / Material : A light weight thermal insulation material with density between 40 and 161 kg/m³ and thickness of 50mm / Application : For internal and external insulation of ventilating ductwork	Juneng Insulation Materials Co., Ltd.	30/11/2021		a) No assessment was made on the toxicity of smoke generated by the product under fire condition.
Thermal Insulation (1337)	"Lucky-PIP Pre-insulated Pipe System (CFC HCFC HCF Free) Grade 304 Stainless Steel Jacket Brand: Lucky-PIP / Model: CFC/HCFC/HCF Free Pre-insulated Pipe (Grade 304 Stainless Steel Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.5 mm thick grade 304 stainless steel and insulation of 10-400mm thick polyurethane foam (milky yellow, 48 kg/m³) machine- injected between the carrier pipe and outer jacket.	Link The Best Company Ltd.	20/1/2022	·	a) Valid test reports shall be maintained. b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) No assessment was made on the test report no. R11G04 of 10.1.2012 by Research Engineering Development Facade Consultant Limited on the fire resistance performance of the pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987. This department is not the authority in respect of the fire resistance for building elements and /or enclosure around services based in BS 476: Part 20:1987 to form fire compartment.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1356)	SSF 515 Class '0' 5-Layer Single Sided Reinforced Aluminium Foil Facing / Model : PAL® SSF 515 / Material : Class "0" 5-layers single sided reinforced aluminium foil facing/flame retardant adhesive/ tri-directional fiberglass scrim/ Kraft paper/ flame retardant coating / Application : For external insulation support in ventilation ductwork and pipework	Phenotherm Asia Ltd, PRC	30/3/2022	September 2026	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by September 2026.
Thermal Insulation (1360)	"Owens Corning Fibreglass Insulation" Laminated with FSK (Board/Pipe Type) / Brand/Model: "Owens Corning Fiberglass Insulation" FSK Faced Board/Pipe Type material / Material: Fiberglass board/pipe type insulation material laminated on one side with FSK vapor barrier / Density: 32 - 64 kg/m³ / Thickness: 25-50 mm / Application: For external insulation of ventilation ductwork or pipework	Owens Corning (Guangzhou) Fibreglas Co., Ltd., PRC	22/4/2022	April 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment letter supersedes our previous one of the same series dated 9.7.2018. c) This assessment is subject to review by April 2027.
Thermal Insulation (1378)	Teembase" Pre-insulated Pipe System / Product : "Teembase" Pre-insulated Pipe / Construction : Piping system comprising a basic carrier pipe, a metal outer jacket of minimum 0.6 mm thick Stainless Steel (Grade 316), Galvanized Steel or 0.8 mm Aluminium Sheet and an insulation of 15 - 125 mm thick polyurethane foam (48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Dongguan Lijie Hardware Technology Development Co. Ltd	20/6/2022	July 2027	a) No assessment was made on the density and toxicity of smoke generated by the assembly under fire. b) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections. c) This assessment is subject to review by July 2027 or with the updating of the edition of the test standard.
Thermal Insulation (1379)	Class 0 "Armaflex" Closed Nitrile Based Elastomeric Insulation / Brand : Armaflex Class 0 / Material : Class 0 Armaflex closed cell nitrile based elastomeric insulation, having a density of 50kg/m³ ± 5kg/m³ / Thickness : 6mm, 9mm, 13mm, 19mm, 25mm, 30mm, 32mm, 40mm & 50mm	Armaflex (Guangzhou) Limited, P.R.C.	20/6/2022		a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by October 2026.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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Thermal Insulation (1381)	"Durkflex®FG" 25mm, 32mm, 40mm, 50mm Thickness Thermal Insulation / Brand Name: Durkflex®FG / Material: Closed cell elastomeric thermal insulation material / Thickness / Density: 25mm, 32mm, 40mm and 50mm / 55±15 kg/m³ / Application: For use as external and internal insulation material in ventilating system	Durkee (Wuhan) Insulation Material Co., Ltd., PRC	21/6/2022		a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) The product shall bear the marking "Durkflex®FG" as a means of identification. c) This assessment letter supersedes our previous one of the same series dated 04.09.2018. d) According to FSD Circular Letter No. 3/2020, the products certified and listed by recognized Product Certification Bodies (PCBs) are deemed to be accepted by this Department subject to (i) no change of the listing condition; and (ii) such equipment and the installation being in conformity with all relevant local requirements. Subject to the validity of listing conditions of the insulation products, application for renewal of prior acceptance on these listed insulation products will not be required.
Thermal Insulation (1383)	Class 0 "Armaflex" Closed Nitrile Based Elastomeric Insulation / Brand : Armaflex Class 0 / Material : Class 0 Armaflex closed cell nitrile based elastomeric insulation, having a density of 50kg/m³ ± 5kg/m³ / Thickness : 6mm, 9mm, 13mm, 19mm, 25mm, 30mm, 32mm, 40mm & 50mm	Armacell (Guangzhou) Limited, P.R.C.	27/6/2022		a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by October 2026.
Thermal Insulation (1384)	"Isophen" CFC & HCFC Free Phenolic Foam Insulation / Model : Isophen CFC & HCFC Free Phenolic Insulation Foam / Material : CFC and HCFC free phenolic insulation with a factory applied reinforced aluminum foil jacket. / Density and Thickness: 40kg/m³ to 120 kg/m³, 25mm thickness	Isotherm Ltd.	5/7/2022	June 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire. b) This letter supersedes our previous one of the same series dated 5 February 2018 and 9 April 2018. c) This assessment is subject to review by June 2027.
Acoustic Attenuator (1398)	"AES" Rectangular Acoustic Attenuator / Brand and Model: "AES" Rectangular Acoustic Attenuator / Construction: The casing of the attenuator is constructed from 6mm to 10 mm thick galvanized steel plate with a folded joint along one edge of the unit sealed with silicone mastic sealant. The splitter and the side walls were fabricated from 0.8mm thick pregalvanised sheet steel with "Owens Corning" fibreglass insulation of density of approximate 40kg/m³ packed under 10% compression. / Quality Assurance Scheme: The manufacturer operates a quality management system to ISO 9001: 2015 with Certificate of Registration issued by Shenzhen Southern Certification Co., Ltd. Certificate No. 061-22-Q1-0019-R1-S on 28.4.2019.	Acoustic Engineering Services (UK) Ltd.	14/10/2022		a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment is subject to review by September 2027 with the valid supporting test report according to the requirement of FSD Circular Letter No. 3/2020.

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Thermal Insulation (1400)	"Byucksan Rockwool" Thermal Insulation / Brand Name : "Byucksan Rockwool" Thermal Insulation / Materilal : A yellowish brown mineral wool sheet having a thickness of 50 mm and a nominal density of 100 kg/m³ / Application : For internal and external insulation of ventilation ductwork / Test Standards : a) BS 476: Part 6: 1989 +A1:2009 b) BS 476: Part 7:1997	Byucksan Yung Dong Factory, South Korea	14/10/2022		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.     b) Valid test reports shall be maintained.     c) This assessment is subject to review by April 2027.
Fiberglass Insulation (1403)	"OWENS CORNING" Fiberglass Insulation Laminated with INSUL-PHEN SW628 Spinning Fabric Facing / Brand Name: "OWENS CORNING" fiberglass insulation / Material: Fiberglass insulation material laminated with (SW628) spinning fabric having a thickness of 25 mm and density of 48 kg/m³ / Application: For internal and external insulation of ventilation ductwork		14/10/2022		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) Valid test reports shall be maintained. c) This assessment is subject to review by May 2027.
Thermal Insulation (1407)	"KAIYUAN" GI Insulated Pipe / Brand and Model: "KAIYUAN" GI Insulated Pipe / Construction: Piping system comprising a basic steel carrier pipe, a metal outer casing/jacket of 0.5mm to 1.0mm thick galvanized steel and insulation of 12mm thick polyurethane foam (60 kg/m³) machine injected between the carrier pipe and the outer casing/jacket.	Dalian Kaiyuan Pipeline Co., Ltd	30/11/2022		a) No assessment was made on the density and toxicity of smoke generated by the assembly under fire. b) This assessment is subject to review by November 2027 or with the updating of the edition of test standard.
Thermal Insulation (1411)	"Lucky-PIP" Pre-insulated Pipe System (CFC and HCFC Free)- Grade 316 Stainless Steel Jacket / Brand: Lucky-PIP / Model: CFC and HCFC Free Pre-insulated Pipe (Grade 316 Stainless Steel Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.5 mm thick grade 316 stainless steel and insulation of 10-400mm thick polyurethane foam (milky yellow, 48 kg/m³) machine-injected between the carrier pipe and outer jacket.		6/1/2023		a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) Valid test reports shall be maintained. c) No assessment was made on whether the product materials used are CFC, HCFC, HCF free. d) This assessment is subject to review by December 2027.

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Thermal Insulation (1412)	PROMATECT H Board 25mm Thick with Thermal Insulation Steel Duct Cladding System (FRR 240/240/240) / Assembly Description: A rectangular galvanized steel sheet ducting system to DW/144, protected by "PROMATECT®-H" boards of 25mm thick and mineral wool insulation of thickness 2x50mm and density 100kg/m³ as described in the FSRG Assessment Report No. FSRG 2022/005/001. / Application: Fire rated ductwork for ventilating/smoke extraction systems excluding kitchen exhaust systems. / Quality Assurance Scheme: The manufacturer operates a quality management system to ISO 9001:2015 certified by Bureau Veritas Certification Holding SAS - UK Branch under Certificate No. 91440116786097608J of 14.9.2021. / Maximum Duct Size: Maximum 6,000 mm (W) x 2,500 mm (H) with maximum section length of 1,130mm. / Material: (a) Ductwork is constructed of galvanized steel sheet with longitudinal seams formed using the Pittburgh Lock or Grooved Corner Seam systems as described in the FSRG Assessment Report No. FSRG 2022/005/001. (b) Ductwork must be constructed with rolled steel angle flanged cross-joints or equivalent roll formed sheet steel profile cross-joints as described in FSRG Assessment Report No. FSRG 2022/005/001. (c) Ductwork must be constructed in accordance with the requirements of DW/144 "Specification for sheet metal ductwork: low, medium and high pressure/ velocity air systems". (d) Gauges (longest side) are as follows: (i) Up to 1,000mm — 0.8mm (ii) Up to 2,500mm — 1.0mm (iii) Up to 6,000mm — 1.2mm with construction as detailed in FSRG Assessment Report No. FSRG 2022/005/001. (e) Thermal insulation: Mineral wool with a nominal density of 100kg/m³ and thickness of 2 x 50mm. / Construction, Hanger and Wall Penetration Details: Details of construction, hanger, insulation and penetration seals for variations in duct size, orientation, etc. shall be in accordance with the details of the test and assessment reports listed below.	Promat International (Asia Pacific) Ltd.	9/1/2023		(a) For application to smoke extraction systems as fire service installations (FSI), all design, fabrication and installation of fire rated ductwork system shall be stuck on ductwork with permanent labels supplied by "Promat International (Asia Pacific) Ltd." for clear identification of the type and model of the steel duct cladding system (e.g. PROMATECT - H Board 25mm Thick with Thermal Insulation Steel Duct Cladding System) at every 5m intervals along the ductwork system. The smoke extraction system including the steel duct cladding system shall be certified by the Registered Professional Engineer who is the responsible for design and/or installing the smoke extraction systems or Registered Fire Service Installations Contractor (RFSIC) in accordance with Code of Practice for Inspection, Testing and Maintenance of Installations and Equipment, 2022 Edition, issued by this Department.  (b) This assessment is not applicable to kitchen exhaust systems.  (c) This letter supersedes our previous letter of the same series dated 12 June 2018.  (d) This assessment is subject to reviewed by December 2027.
Thermal Insulation (1415)	"Lucky-PIP" Pre-insulated Pipe System (CFC and HCFC Free)- Aluminium Jacket / Brand: Lucky-PIP / Model: CFC and HCFC Free Pre-insulated Pipe (Aluminium Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.6 mm thick aluminium and insulation of 10-400mm thick polyurethane foam (milky yellow, 48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Link The Best Company Ltd.	20/1/2023	,	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) Valid test reports shall be maintained. c) No assessment was made on whether the product materials used are CFC, HCFC, HCF free. d) This assessment is subject to review by January 2028.
Thermal Insulation (1416)	"Lucky-PIP" Pre-insulated Pipe System (CFC and HCFC Free)- Galvanized Steel Jacket / Brand: Lucky-PIP / Model: CFC and HCFC Free Pre-insulated Pipe (Galvanized Steel Jacket) / Construction: Piping system comprising a basic carrier pipe, a metal outlet jacket of minimum 0.5 mm thick galvanized steel and insulation of 10-400mm thick polyurethane foam (milky yellow, 48 kg/m³) machine-injected between the carrier pipe and outer jacket.	Link The Best Company Ltd.	20/1/2023		a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) Valid test reports shall be maintained. c) No assessment was made on whether the product materials used are CFC, HCFC, HCF free. d) This assessment is subject to review by January 2028.

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ТҮРЕ	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1417)	"K-Flex TITAN" Closed Cell Flexible Elastomeric Foam Insulation Materials for Insulation of Ventilation Ductwork or Pipework / Brand: K-Flex TITAN / Material: Nitrile Butadiene Rubber (NBR) elastomeric insulation foam closed cells with a flexible co-extruded UV resistant jacketing with density of 65 kg/m³ approx. / Insulation Thickness: 13 mm to 25 mm / Application: For internal lining or external insulation of ductwork and pipework with insulation thickness mentioned above	K-Flex Malaysia Sdn. Bhd.	20/1/2023	January 2028	a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by January 2028.
Thermal Insulation (1418)	"COIT-PIP" Pre-insulated Pipe / Brand and Model: "COIT-PIP" Pre-insulated Pipe / Construction: Piping system comprising a basic carrier pipe (specified for particular services, e.g. black steel pipe, G.I. steel pipe, copper pipe, etc.), an outer protective jacket of 3 different materials (Alumimum 0.8mm thick, Galvanized steel 0.6mm thick and stainless steel 316 0.6mm thick) and insulation of 25mm to 70mm thick polyurethane foam (48 kg/m³ to 60 kg/m³) between the carrier pipe and the outer jacket.	China Overseas Innovation & Technology (Zhuhai) Company Limited	20/1/2023	January 2028	a) No assessment was made on the density and toxicity of smoke generated by the assembly under fire. b) No assessment was made on fire resistance of the proposed product c) This assessment is subject to review by January 2028.
Thermal Insulation (1428)	"ROCKWOOL ThermalRock" Thermal Insulation for Use in Mechanical Ventilating Systems / Brand Name / Model : Rockwool ThermalRock S (Slab): ThermalRock 60, ThermalRock 80, ThermalRock 100, ThermalRock 140 and ThermalRock 160 / Material : Stone wool board material made of basalt, a volcanic stone / Thickness : 50mm / Density : 60kg/m³, 80kg/m³, 100kg/m³, 140kg/m³ and 160kg/m³ / Application : For acoustic or thermal insulation in ventilation ductwork in ventilating systems		20/2/2023	January 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements b) No assessment was made on composition / information on the ingredients of the materials. c) This assessment is subject to review by January 2028.
Thermal Insulation (1440)	"Owens Corning" Fiberglas Duct Liner Board with Black Glass Tissue (BGT) facing / Brand/Model : "Owens Corning" Fiberglas Duct Liner / Material : "Owens Corning" Fiberglas Duct Liner Board with Black Glass Tissue facing / Thickness / Density : 25 mm / 32 kg/m³ 50 mm / 64 kg/m³ / Application : For internal lining of ventilation ductwork	Owens Corning (Guangzhou) Fiberglas Co., Ltd., PRC	26/7/2023	July 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment letter supersedes our previous one of the same series dated 17.4.2019 c) This assessment is subject to review by July 2028.
Thermal Insulation (1447)	"Evertherm / Megatherm" Phenolic Foam Materials (80kg/m³) for Pipework and Air Distribution Ductwork / Brand/Model : "Evertherm/Megatherm" / high density (80kg/m³) / Material : A closed cell phenolic foam insulation material with aluminium foil facing / Thickness / Density 25 mm / 80 kg/m³ / Application : For external insulation of ventilating ductwork and pipework	Evertherm Insulation Hong Kong Ltd., HK	25/8/2023		a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.     b) This assessment is subject to review by August 2028 or with the updating of the edition of the test standard.

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Thermal Insulation (1448)	"Evertherm / Megatherm" Phenolic Foam Materials (120kg/m³) for Pipework and Air Distribution Ductwork / Brand/Model : "Evertherm/Megatherm" / high density (120kg/m³) / Material : A closed cell phenolic foam insulation material with aluminium foil facing / Thickness / Density 25 mm / 120 kg/m³ / Application : For external insulation of ventilating ductwork and pipework	Evertherm Insulation Hong Kong Ltd., HK	25/8/2023	August 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.     b) This assessment is subject to review by August 2028 or with the updating of the edition of the test standard.
Thermal Insulation (1453)	"Owens Corning" Fiberglas Duct Liner Board with Black Glass Tissue (BGT) facing / Brand/Model : "Owens Corning" Fiberglas Duct Liner / Material : "Owens Corning" Fiberglas Duct Liner Board with Black Glass Tissue facing / Thickness / Density : 25 mm / 32 kg/m³ 50 mm / 64 kg/m³ / Application : For internal lining of ventilation ductwork	Owens Corning (Guangzhou) Fiberglas Co., Ltd., PRC	22/9/2023	July 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This amended assessment letter supersedes our previous letters of same series dated 17.4.2019 and 26.7.2023 respectively. c) This assessment is subject to review by July 2028.
Thermal Insulation (1454)	"BBS" Rockwool Insulation - 40 mm (thk) for Use in Ventilating System / Brand Name : "BBS" rockwool insulation / Material : A yellowish brown mineral wool sheet of 40mm thickness, having a nominal density 140 kg/m³ / Application : For internal and external insulation in ventilating systems.	Huizhou Jialiang Thermal Insulation Materials Co., Ltd	4/10/2023	September 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements.     b) This assessment is subject to review by September 2028.
Thermal Insulation (1472)	"ATC" Pre-insulated Air Duct Panels for the Construction of Air Ducts in Mechanical Ventilating Systems / Brand/Model : ATC / Material : A composite insulation material comprising a Polyisocyanurate (PIR) rigid foam panel, coated with embossed aluminium foil on both sides. / Overall Thickness : 21 mm	Shanghai Hongji Ventilation Facilities CO., Ltd., PRC	7/11/2023	November 2028	a) No assessment was made on the density and toxicity of smoke generated by the product under fire. b) The use of Pre-Insulated Panels shall be referred to the application in the Appendix of FSD Circular Letter No. 1/2014. c) The use of Pre-Insulated Panels shall not be permitted for construction of air ducts in Mechanical Ventilating System in Scheduled Premises under the Ventilation of Scheduled Premises Regulation, Cap 132CE. d) This assessment is subject to review by November 2028.
Sound Attenuator (1473)	"Vibro-Acoustics" Sound Attenuator For Use in Mechanical Ventilating System / Brand : "Vibro-Acoustics" / Model No. : RLC Series / Material : Galvanized steel sheet casing, acoustic splitter infill material of 24kg/m³ "LAH" glassfibre wrapped with 12 Micron "Mylar" polyester film / Application : For sound attenuator in ventilating system	Dongguan Luen Wah Metal Products Co., Ltd	15/11/2023	October 2028	a) Valid certificates and test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. c) This assessment is subject to review by October 2028.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1479)	"Owens Corning QUIETR" Acoustic Duct Liner Fiberglass Insulation / Brand and Model : Owens Corning Quietr acoustic duct liner fiberglass insulation / Material : Fiberglass insulation material / Thickness/ Density : 25mm / 48kg/m³ / Application : For internal lining of ventilating ductwork	Owens Corning Mexico, S. De R.L De C.V	2/1/2024	October 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition.     b) This assessment is subject to review by October 2026.
Thermal Insulation (1481)	"Haifa Thermal Insulation Materials" Glass Wool Insulation with Metal/Paper Cladding / Brand Name / Model : Haifa Thermal Insulation Materials / 3200 and 5000 / Material : Glass wool and aluminum-foil paper (treated with water based black paint on top face) / Thickness : 32 mm — 50 mm / Density : 32 kg/m³ — 48 kg/m³	Qing Yuan Hanjiang Glass Wool Tech. Co. Ltd. / PRC	23/1/2024	January 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions.     b) This assessment is subject to review by January 2029 or with the updating of the edition of test standard.
Thermal Insulation (1483)	"Owens Corning Fiberglass Insulation" Laminated with 763 Black DSF (Blanket / Board & Pipe Type) / Brand/Model: "Owens Corning Fiberglass Insulation" Laminated with 763 black DSF (Blanket / Board & Pipe Type) / Material: Fibreglass Blanket / Board & Pipe type insulation material laminated with black color double sided aluminum foil (763 Black) / Density: 24 - 48 kg/m³ (Blanket Type) 32 - 64 kg/m³ (Board & Pipe Type) / Thickness: 25 - 50 mm / Application: For internal & external insulation of ventilation ductwork.	Owens Corning(Guangzhou) Fibreglas Co., Ltd., PRC	8/3/2024	March 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment is subject to review by March 2029.
Thermal Insulation (1484)	"Owens Corning" Mineral Wool Insulation For Use in Mechanical Ventilation System / Brand : Owens Corning / Material : Mineral wool insulation material having a thickness of 50 mm with density of 80 kg/m³ and 100 kg/m³ / Application : For internal and external insulation of ventilation ductwork.	Owens Corning (Guangde) Rockwool Manufacturing Co., Ltd	20/3/2024	April 2028	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) Valid test reports shall be maintained. c) This assessment is subject to review by April 2028. d) No assessment was made on the following test reports in respect of BS 476: Part 4 which is not the assessment criteria for insulation for use in mechanical ventilation system according to the FSD Circular Letter No. 2/2023. (i) Report No. SDFS2106003642FF-01 of 6.5.2023; (ii) Report No. SDFS2106003643FF-01 of 6.5.2023
Thermal Insulation (1490)	"Owens Corning" Fiberglass Duct Liner Board With Black Glass Tissue Facer / Brand Name/ Model: Fiberglass Duct Liner Board / Material: Fiberglass Duct Liner Board with Black Glass Tissue Facer / Thickness: 25 mm - 50 mm / Density: 32 kg/m³ - 64 kg/m³ / Application: For internal lining of ventilation ductwork.	歐文斯-科寧(廣州 <b>)</b> 玻璃纖維 有限公司	22/4/2024	April 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.     b) This assessment is subject to review by April 2029.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1504)	"Phenotherm®" Phenolic Foam Insulation Support c/w Density 120kg/m³ 25mm thickness and PAL® DSF-White 818 Aluminium Foil Facing / Brand : Phenotherm® / Material : PAL® DSF-White 818 Class "0" 9-Layers double-side reinforced aluminum foil facing / Thickness / Density : 25 mm/ 120 kg/m³ / Application : For insulation support in ventilating system.		30/7/2024	July 2029	a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by July 2029.
Thermal Insulation (1508)	"UniFiber®" Faced Blanket c/w PAL® DSF-Black 818 Class "0" Double Side Reinforced Aluminium Foil Facing / Brand: UniFiber® / Material: PAL® DSF-Black 818 Class "0" double-side reinforced aluminium foil facing / Thickness/ Density: 25 mm/ 48 kg/m³ / Application: For insulation of ventilation ductwork and pipework.	UniFiber Manufacturing Limited	7/8/2024	February 2029	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by February 2029. d) The following standards should be updated in the catalogue: - (i) The production processing of the product conforming to GB/T 13350 as confirmed by manufacturer's letter dated 17.7.2024 should be updated in the catalogue; (ii) ISO: 9001:2015 shown in the catalogue should be erased and updated.
Thermal Insulation (1510)	"UniFiber®" Fiber Glass Board c/w PAL® DSF-Black 818 Class "0" Double Side Reinforced Aluminium Foil Facing / Brand : UniFiber® / Material : PAL® DSF-Black 818 Class "0" double-side reinforced aluminium foil facing / Thickness/ Density : 25 mm/ 64 kg/m³ / Application : For insulation of pipework in ventilating systems.	UniFiber Manufacturing Limited	12/8/2024	August 2029	a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by August 2029.
Thermal Insulation (1511)	"UniFiber®" Fiber Glass Duct Liner Faced with Textile Type Black Glass Cloth (BGC) Facing / Brand: UniFiber® / Material: Fiberglass insulation with textile type Black Glass Cloth (BGC) facing / Thickness/ Density: 25 mm/ 32 kg/m³ / Application: For insulation of ventilation ductwork.	UniFiber Manufacturing Limited	12/8/2024	August 2029	a) National Standards of Republic China GB/T 13350 — Glass wool and their products for thermal insulation     a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by August 2029.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1514)	"Purelands Thermawool" DSF (PB-628) Thermal Insulation / Brand Name : "Purelands Thermawool" DSF (PB-628) / Material : Glasswool blanket type insulation material, often laminated with Thermofoil reinforced aluminum foil (PB-628) / Thickness : 25 mm - 50 mm / Density : 32 kg/m³ - 48 kg/m³	Qing Yuan Hanjiang Glass Wool Tech. Co. Ltd., PRC	15/8/2024	August 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.     b) This assessment is subject to review by August 2029 or with the updating of the edition of test standard.
Thermal Insulation (1519)	"Phenotherm®n Phenolic Foam Insulation in Density 60kg/m³ 20mm thickness c/w Embossed Aluminum Foil Facing for Ventilation Ductwork / Brand / Model : Phenotherm® / phenolic foam / Material : A composite insulation panel comprising a phenolic foam core having a density of 60kg/m³ bonded on both sides with white glass tissue and embossed aluminum foil / Overall Thickness : 20 mm / Application : For external insulation of ductwork in ventilation system	Donnguan Juwan Rubber & Plastic Products Co., Ltd, PRC	16/9/2024	September 2029	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by September 2029.
Thermal Insulation (1522)	"WING ONN-FLEX" Flexible Closed Cell Elastometic Insulation Materials used in Ventilating System / Brand: "WING ONN-FLEX" flexible closed cell elastomeric / Material: A closed-cell thermal insulation material having a low thermal conductivity (K value) and nonflammable / Insulation Thickness: 15 mm - 50 mm / Application: For external insulation of ductwork and pipework	Huizhou Wing Onn Building Material Co., Ltd.	24/10/2024	October 2029	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire. c) This assessment is subject to review by October 2029.
Thermal Insulation (1523)	"Best Bond" FHPEVA Thermal Insulation Pipe Support / Model : "Best Bond" FHPEVA / Construction : Closed cell structure completely seals out air and moisture, high pressure foamed by high density polyethylene vinyl acetate (PEVA) / Density : 556 kg/m³ / Application : As external insulation ring for pipe work in ventilating system	Meriton East (HK) Ltd., PRC	30/10/2024	October 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment letter supersedes our previous one of the same series dated 20.12.2019. c) This assessment is subject to review by October 2029.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Thermal Insulation (1524)	"PAL <sup>®</sup> " Polyurethane Foam (PU) Pre-insulated Pipe with 0.8mm G.I. Sheet / Product: "PAL <sup>®</sup> " Polyurethane Foam (PU) Pre-insulated Pipe with 0.8mm Galvanized Iron sheet / Construction: Piping system comprising a basic carrier pipe, a metal outer jacket of 0.8 mm thick Hot-dip galvanized iron sheet and an insulation of 15 - 150 mm thick polyurethane foam (48 kg/m³) machine-injected between the carrier pipe and outer jacket /	Dongguan Juwun Rubber & Plastic Product Co., Ltd.	6/11/2024		(a) No assessment was made on the density and toxicity of smoke generated by the assembly under fire. (b) No assessment was made on the test report no. TC.24.08.003806 of 14.10.2024 by TÜV SÜD SW Rail Transportation Technology (Jiangsu) Co., Ltd on the fire resistant performance of pre-insulated pipe (i.e. the Jacket pipes) in accordance with BS 476: Part 20:1987+AC:2014. This department is not the authority in respect of the fire resistance for building elements and/or enclosure around services based in BS 476: Part 20: 1987+AC:2014 to form fire compartment. (c) This assessment is subject to review by November 2029 or with the updating of the edition of the test standard.
Acoustic Attenuator (1532)	"AES" Rectangular Acoustic Attenuator / Brand and Model : "AES" Rectangular Acoustic Attenuator / Construction : The casing of the attenuator is constructed from 6mm to 10 mm thick galvanized steel plate with a folded joint along one edge of the unit sealed with silicone mastic sealant. The splitter is fabricated by 1.2 mm thick galvanised perforated steel plate 3mm holes at 5mm pitch. The attenuator is enclosed with "Owens Corning" glass fibre packing of 40kg/m³ under 10% compression / Sizes : Maximum 4,500mm(W) x 4,500mm(H) x 5,000mm (L)	Kin Wai Air Conditioning Equipment (Shenzhen) Co. Ltd.	12/12/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) This assessment is subject to review by December 2029 or with the updating of the edition of test standard.
Thermal Insulation (1533)	"ECOFIBRA" Category A Centrifugal Glass Wool Insulation / Brand Name / Model : "ECOFIBRA" / Category A / Materials : Ultrafine glass wool felt, aluminum foil veneer and water based adhesive / Thickness : 25 mm (nominal) / Density : 32 kg/m³ (nominal) / Application : For use as insulation material for Ventilating System	Jiangsu Aquaset New Materials Co. Ltd. / PRC	20/12/2024		a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions.     b) This assessment is subject to review by December 2029 or with the updating of the edition of test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

Note (1): For details of the acceptance criteria / conditions, please refer to the FSD acceptance letter(s) issued to the manufacturer / authorized supplier(s) of the products

TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
(11) Miscellaneous					
Aluminium Foil Tape (1002)	"BOSTIK IDENDEN T303" Aluminium Foil Tape Used in Ventilating Systems / Brand Name: "Bostik" Idenden T303" / Material: Aluminium foil coated with rubber/resin adhesive and removable paper liner / Application: Sealing of joints in ventilation ductwork / Information Sheet No.: TDS00654	Bostik Limited, England	9/1/2018	September 2024	a) No assessment was made on the density and toxicity of smoke generated by the product under fire.
Aluminium Foil Tape (1015)	PAL® AT38 Class '0' 38 Micron thick Aluminium Foil Tape / Brand Name : PAL® AT38 / Material : AT-38 - High strength aluminium foil (38 micron thick) coated on one side with permanent synthetic rubber resin adhesive / Application : Sealing of joints in ventilating system	Phenotherm Asia Ltd., PRC	6/4/2018	December 2027	a) No assessment was made on the density and toxicity of smoke generated by the products under fire condition. b) This assessment letter supersedes our previous one of the same series dated 29.4.2014.
Insulation Adhesive (1048)	"I-Bond 1230" Water Based Adhesive / Brand Name : "I-bond 1230" / Material : Water Based adhesive / Application : For the bonding of thermal insulation materials to metal ductwork in ventilation systems	Foshan Fokis New Materials Co. Ltd	5/9/2018	January 2023	a) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Aluminium Foil Tape (1050)	PAL® AT-38W Class '0' White Aluminium Foil Tape / Brand Name : PAL® AT-38W / Material : AT-38W - High strength aluminium foil (38 micron thick) with a white surface finish coating on the external side and coated on the other side with permanent synthetic rubber resin adhesive / Application : Sealing of joints in ventilating systems	Phenotherm Asia Ltd., PRC	14/9/2018	December 2027	a) No assessment was made on the density and toxicity of smoke generated by the products under fire condition. b) This assessment letter supersedes our previous one of the same series dated 29.4.2014.
Paint (1076)	"Armafinish 99" Paint / Model : "Armafinish 99" Paint / Material : Water-based coating using terpolymer resin system with white colour / Application : Protection of flexible thermal insulation materials against sunlight, UV radiation and chemical attack.	Armacell (GuangZhou) Limited, PRC	22/11/2018	September 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Adhesive (1077)	"Armaflex" 520 BLV Adhesive / Model: "Armaflex" 520 BLV Adhesive / Material: A synthetic rubber base of dark green colour with synthetic resins and filters, hydrocarbon- and ketone-type solvents / Application: As adhesive for joining flexible elastomeric and flexible polyethylene insulation on ductwork and pipework.	Armacell (GuangZhou) Limited, PRC	22/11/2018	November 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.
Adhesive (1078)	"Armaflex" 520 Adhesive / Model : "Armaflex" 520 Adhesive / Material : Adhesive based on chloroprene rubber in a blend of flammable solvents with a light yellow colour. The adhesive is not flammable in dry state / Application : As adhesive for joining flexible elastomeric and flexible polyethylene insulation to ductwork and pipework.	Armacell (GuangZhou) Limited, PRC	22/11/2018	November 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements.
Sealant Tape (1100)	PAL® TC-98 Class '0' Butyl Sealant Tape for Ventilating Ductwork Gasket-sealing / Brand Name: PAL® TC-98 / Model: Class "0" / Material: Polymeric butyl rubber based compound / Application: For Gasket-sealing and provides a high compression flexible sealant between mating flanges and laps	Phenotherm Asia Ltd. / Dongguan Juwun Rubber & Plastic Products Co., Ltd., PRC	2/5/2019	January 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment is subject to review by January 2029 or with the updating of the edition of the test standard.
Duct Sealant (1105)	"DUCTSEAL" Air Duct Sealant / Brand Name: "DUCTSEAL" A fire resistive and water based sealant / Application: For sealing galvanized, aluminium and mild steel ductwork in ventilating systems / Installation method: Method, coverage range and drying time shall fully comply with the manufacturer's recommendations.	Aeroseal, LLC	23/5/2019	January 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment is subject to review by January 2029 or with the updating of the edition of the test standard.
Insulation Adhesive (1109)	PAL® IA 811WB Class "0" Water Based Insulation Adhesive / Product Name : PAL® IA 811 WB Class "0" Water Based Insulation Adhesive / Material : A quick setting adhesive with white in colour / Application : For the adhering of flexible elastomeric insulation foam to ductwork and pipework	Phenotherm Asia Ltd., PRC	29/5/2019	December 2024	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment letter supersedes our previous one of the same series dated 15.4.2015. c) This assessment is subject to review by December 2024 or with the updating of the edition of the test standard.
Insulation Adhesive (1148)	PAL® IA 911WB Class "0" Water Based Insulation Adhesive / Product Name : PAL ® IA 911 WB Class "0" Water Based Insulation Adhesive / Material : A water based insulation adhesive with a grey colour / Application : For the fixing of insulation to ductwork and pipework	Phenotherm Asia Ltd., PRC	8/11/2019	July 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) This assessment letter supersedes our previous one of the same series dated 16.7.2015.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Glass Cloth (1179)	"Flying Horse" FH-GC Glass Cloth / Brand Name : Flying Horse / Material : 100% Glass Fibre / Application : Sealing of thermal insulation in ventilating system	York Choi Industrial Limited	21/5/2020	February 2029	a) No assessment was made on the density and toxicity of smoke generated by the products under fire condition.
Tesa 4613 Duct Tape (1206)	Tesa 4613 Duct Tape / Brand Name : "Tesa" model 4613 / Thickness : 0.18 mm / Application : For the sealing of Duct in ventilation system	Tesa Plant (Suzhou) Co., Ltd. PRC	23/7/2020	April 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment is subject to review by Apr. 2027 or with the updating of the edition of the test standard.
Tesa 60642 Aluminum Foil Tape (1207)	Tesa 60642 Aluminum Foil Tape / Brand Name : "tesa" model 60642 / Thickness : 0.04 mm / Application : For the sealing of joints in ventilation system	tesa Plant (Suzhou) Co., Ltd. PRC	23/7/2020	July 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment is subject to review by Jul 2029 or with the updating of the edition of the test standard.
Glass Tape (1236)	"COLAN TTW30" Glass Tape for use in Ventilation/Smoke Extraction Systems / Product Name : "COLAN TTW 30" Glass Tape / Material : a) 'E' type texturized yarns; b) 3mm thick and 50mm wide; c) Density of approximately 2700 kg/m³ / Application : For use as gasket in ventilation/smoke extraction systems.	Colan Products Pty Ltd, Australia	12/1/2021	September 2025	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) Provide with identification label on each packing. c) Valid test reports shall be maintained
Duct Sealant (1285)	PAL® IS918WB Class '0' Water Based Industrial Sealant For Ventilation Systems / Brand : PAL® "IS918WB" / Description : A water based industrial sealant with grey colour / Application : As a sealant for joints in sheet metal ductwork, rigid phenolic form and PU foam	Phenotherm Asia Ltd, PRC	24/5/2021	,	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Duct Sealant (1286)	PROMASEAL® Intumescent Acrylic Sealant / Brand Name : PROMASEAL® Intumescent Acrylic Sealant / Material : Acrylic-based sealant in a white or grey colour / Application : As a sealant for sealing on joints, seams and pin holes of metal air ductwork in mechanical ventilation system	FSI Limited, UK	24/5/2021	June 2025	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions. b) A valid certificate of quality management system certification to suitable international/national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Contact Adhesive (1296)	"K-Flex K428" Contact Adhesive for Insulation of Ventilation Ductwork or Pipework / Brand : K-Flex K428 / Material : Synthetic rubber base of black colour with synthetic resins and fillers, hydrocarbon type solvents / Composition : Acetone, flame retardant, synthetic rubber / Application : Adhesive for joining flexible elastomeric and flexible polyethylene insulation on ductwork and pipework	L'Isolante K-Flex (Suzhou) Company Limited	29/6/2021	June 2026	a) Valid test reports shall be maintained; b) No assessment was made on the density and toxicity of smoke generated by the material under fire.
Aluminium Foil Tape (1300)	INSUL-PHEN "CW FRT" Aluminium Foil Tape / Brand Name: INSUL-PHEN "CW FRT" / Material: 30 micron thick aluminium foil coated on one side with fire-retardant hot melt adhesive / Application: Sealing of joints for insulation used in ventilating system	INSUL-PHEN Insulation Ltd., PRC	5/7/2021	June 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Aluminium Foil Tape (1301)	INSUL-PHEN "CW FRWT" Aluminium Foil Tape / Brand Name : INSUL-PHEN "CW FRWT" / Material : 30 micron thick aluminium foil coated on one side with white lacquer on one side with fire-retardant hot melt adhesive / Application : Sealing of joints for insulation used in ventilating system	INSUL-PHEN Insulation Ltd., PRC	5/7/2021	June 2026	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) A valid certificate of quality management system certification to suitable international/ national standard shall be provided to cover the manufacturing dates of the products during compliance inspections.
Aluminium Foil Tape (1302)	"T-F4001FR" Flame Retardant Aluminium Foil Tape / Model : T-F4001FR / Material : 0.16mm thick aluminium foil tape with flame retardant adhesive and removable paper release liner / Application : Sealing of joints for insulation used in ventilating system	Jiangyin Meiyuan Industries Corporation	13/7/2021	October 2024	a) No assessment was made on the density and toxicity of smoke generated by the product under fire condition. b) This assessment is subject to review by October 2024 or with the updating of edition of the test standard.

## **Ventilation Systems Group of FIRE SERVICES DEPARTMENT**

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Adhesive (1353)	"Armaflex" 520 BLV Adhesive / Model : "Armaflex" 520 BLV Adhesive / Material : A synthetic rubber base of dark green colour with synthetic resins and filters, hydrocarbon- and ketone-type solvents. / Application : As adhesive for joining Armaflex® flexible elastomeric insulation on ductwork and pipework.	Armacell LLC	30/3/2022	January 2027	a) No assessment was made on the density and toxicity of smoke generated by the product under fire conditions as that are not our requirements. b) This assessment is subject to review by Jan 2027 or with the updating of the edition of test standard.
Aluminium Foil Tape (1364)	"Scapa" 337A Aluminum Foil Tape / Brand Name : Scapa / Material : Soft aluminium foil tape / Application : Closing rigid air duct insulation.	Scapa Shanghai Int'l Trading Co., Ltd.	20/5/2022	April 2027	a) No assessment was made on the density and toxicity of smoke generated by the products under fire condition     b) This assessment is subject to review by April 2027
Foam Tape (1366)	"Scapa" 3594 PVC Foam Tape / Brand Name : Scapa / Material : PVC single sided foam tape, coated on one side with a pressure sensitive acrylic adhesive. / Application : water-seal and air/dust seal when compressed	Scapa UK Ltd.	20/5/2022	April 2027	a) No assessment was made on the density and toxicity of smoke generated by the products under fire condition b) This assessment is subject to review by April 2027
Intustrip Sealant (1388)	Bostik Intustrip Sealant for Ventilation System / Brand / Model : Bostik Intustrip / Intustrip Sealant / Material : Soft adhesive pre-formed strip sealant, based on a hydrocarbon rubber, compound with special additives. / Application : Use as a compression seal in fire sensitive situations	Bostik Ltd.	8/8/2022	July 2027	a) No assessment was made on the density and toxicity of smoke generated by the products under fire. b) This assessment is subject to review by July 2027.
Self-adhesive Foil Tape (1389)	"Ideal Tape 488 ECO" Self-Adhesive Aluminium Foil Tape / Brand Name : "Ideal Tape 488 ECO" / Material : 30 microns thick (1.2 mil) aluminium foil coated on one side with pressure sensitive adhesive and removable paper liner / Application : Sealant of joints in ventilation ductwork	Ideal Tape Co., USA	8/8/2022	February 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire. b) Valid test reports shall be maintained; c) This assessment is subject to review by February 2027.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Duct Sealant (1394)	Pyroplex Intumescent Acrylic Sealant as Duct Sealant for Use in Ventilation System / Model : 2WT31 0PY, 2SWT600 / Material : High modulus, halogen free material white sealant / Application : For gap sealing in ventilation system	Pyroplex Limited	17/8/2022	May 2027	a) Valid test reports shall be maintained;     b) No assessment was made on the density and toxicity of smoke generated by the material under fire.     c) This assessment is subject to review by May 2027.
Metal Valve (1401)	"HCS" VFV Series and CFV Series Metal Valve / Brand and Model: "HCS" VFV Series and CFV Series / Application: Air flow management system according to manufacturer's instruction / Construction: The Variable Volume Venturi Valve (VFV metal valve) and Constant Volume Venturi Valve (CFV metal valve) are made of phenolic coated aluminium 1060 alloy valve body and assembled with 316 Stainless Steel internal hardware including shaft, shaft supports and PVDF coated shaft bearings. The valve core is made by aluminium 1060 alloy and assembled with glass fiber core tube and 316 stainless steel tube spring.  The glass fiber core tube was tested to EN45545-2:2013+A1:2015 in compliance with the requirement of R22 for HL1 Hazard Level Classification and R23 for HL2 Hazard Level Classification.	Zhuhai Haoxing Control System Co., Ltd.	14/10/2022		a) Valid certificate shall be maintained; b) This assessment is subject to review by October 2027 with the valid supporting test report according to the requirement of FSD Circular Letter No. 3/2020.
PP Valve (1402)	"HCS" iVBV-P Series and BVBV-P Series PP Valve / Brand and Model: "HCS" iVBV-P Series and BVBV-P Series / Application: Air flow measurement system according to manufacturer's instruction / Construction: The valve body is made of flame retardant polypropylene (PP) material tested to UL 94 in compliance with V-0 flammability class. The VAV butterfly valve is comprising in a cylindrical tube contained with differential pressure sensor, digital VAV controller and damper actuator for volumetric flow control.	Zhuhai Haoxing Control System Co., Ltd.	14/10/2022	October 2027	a) Valid certificate shall be maintained; b) This assessment is subject to review by October 2027 with the valid supporting test report according to the requirement of FSD Circular Letter No. 3/2020.
Duct Sealant (1410)	"Foster Duct-Fas 32-19" Water Based Metallic Duct Sealant / Brand Name: "Foster Duct-Fas 32-19" A Fire Resistive, Water Based, Non-Fibrated Sealant / Application: For sealing galvanized, aluminium and mid steel ductwork in ventilating systems Installation Method, coverage range and drying time shall fully comply with the manufacturer's recommendations	Products Inc.	6/1/2023	December 2027	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.     b) Valid test reports shall be maintained.     c) This assessment is subject to review by December 2027.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Duct Sealant (1422)	"SHC 105-19" Water Based Duct Sealant / Brand Name : "SHC 105-19" WB duct sealant / Material : Sealant made of Water, Dihydrogen Oxide, Calcium Carbonate, Titanium Dioxide. 1,2-Dihydroxyethane, Silic anhydride, Trihydroxyaluminium / Density : 1220 kg/m³ approximately / Application : For sealing of ductwork in ventilating systems	Sam Hwa Chemicals Co., Ltd., Korea	2/2/2023	,	a) No assessment was made on the density and toxicity of smoke generated by the material under fire as that are not our requirements. b) No assessment was made on composition / information on the ingredients of the sealant. c) Our previous letter of same series dated 13.12.2017 is hereby superseded; and d) This assessment is subject to review by January 2028.
Duct Sealant (1429)	"Hilti" CP 606 Firestop Flexible Sealant For Use in Mechanical Ventilation System / Brand Name: "Hilti" / Model: CP606 Firestop Flexible Sealant / Application: For use in metal as base material in ventilating system in E&M work / Installation Method: Method, coverage range and drying time shall fully comply with the manufacturer's recommendations	Hilti Corporation	27/3/2023	, and the second	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.     b) Valid test reports shall be maintained.     c) This assessment is subject to review by August 2027.
Aluminium Foil Tape (1455)	"RW BLQ/T-BF3001FR" Black Lacquer Aluminium Foil Tape / Brand & Model : Rockwool, "RW BLQ/T-BF3001FR" Black Lacquer Aluminium Foil Tape / Material : Aluminium foil tape comprising of 0.03mm thick aluminium foil coated with black lacquer. Overall thickness and area bulk density are approximately 0.16 mm and 188g/m² respectively. / Application : For use as moisture or vapour barrier on external insulation for ventilating system	Jiangyin Meiyuan Industries Corporation, PRC	4/10/2023	,	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements.     b) This assessment is subject to review by September 2028.
Intustrip Sealant (1467)	"Bostik" Intustrip Sealant for Ventilation System / Brand / Model : Bostik / Intustrip Sealant / Material : Soft adhesive pre-formed strip sealant, based on a hydrocarbon rubber, compound with special additives. / Application : Use as a compression seal in fire sensitive situations.	Bostik Limited	27/10/2023		a) No assessment was made on the density and toxicity of smoke generated by the product under fire.     b) This assessment is subject to review by October 2028.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Intustrip Sealant (1469)	"Bostik" Intustrip Sealant for Ventilation System (Amendment) / Brand / Model : Bostik / Intustrip Sealant / Material : Soft adhesive pre-formed strip sealant, based on a hydrocarbon rubber, compound with special additives. / Application : Use as a compression seal in fire sensitive situations	Bostik Limited	2/11/2023		a) No assessment was made on the density and toxicity of smoke generated by the product under fire. b) Updated test reports issued within 5 years at the time of your application (i.e. 29.8.2023) for your product in complying with (i) BS 476: Part 6: 1989 + A1:2009 and (ii) BS 476: Part 7:1997 must be submitted to this office for review by August 2024. c) This assessment is subject to review by August 2024. Our previous letter under reference FSD LC VSG 316/15 dated 27.10.2023 is hereby superseded by this letter.
Water Based Adhesive (1471)	"I-Bond 1230" Class "0" Water Based Adhesive / Brand Name / Model No. : "I-bond" / 1230 / Material : Water based adhesive / Application : For the bonding of thermal insulation materials to metal ductwork in ventilating systems	Foshan Fokis New Material Co., Ltd., PRC	3/11/2023		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.     b) This assessment is subject to review by October 2028.
Fire Retardant Gasket (1493)	"FLAMEBAR" Fire Retardant Gasket for FLAMEBAR BW11 Fire Resisting Ductwork System / Brand and Model: FLAMEBAR Fire Retardant Gasket / Material: Class '0' highly flexible PVC nitrile rubber, chemically inert foam tape / Application: For Gasket-sealing and designed to be squeezed between the duct flanges to produce a high quality seal.	Firespray International Limited	2/5/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) This assessment is subject to review by May 2029 or with the updating of the edition of the test standard.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
PVC Foam Tape (Duct Tape) (1494)	"Scapa 3594" PVC Foam Tape (Duct Tape) / Brand / Model : scapa / 3594 / Material : A predominantly closed celled very hard foam compression sealant. An acrylic pressure sensitive adhesive is coated on one side, and the product has a paper release liner on the other non-adhesive face. / Application : Forms a compression water seal; air / duct seal, for applications where fire performance.	Scapa UK Limited	20/5/2024	May 2029	a) No assessment was made on the density and toxicity of smoke generated by the product under fire.     b) This assessment is subject to review by May 2029.
Duct Sealant (1496)	"AOBO" 澳波環保 AES-AEROSOL 密封膠 / Brand Name / Model No.: "AOBO" 澳波環保 / AES-AEROSOL 澳波環保密封膠 / Material : Stable, non-toxic, non-flammable polymer lotion, and distributed in the HVAC ductwork system under pressure / Weight : 3.9kg~4.1kg / 4L / Application : Building ventilation duct sealing.	Qingdao AOBO Environmental Protection Technology Co., Ltd. 青島澳波環保科技有限責任公 司	4/7/2024	June 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition.     b) This assessment is subject to review by June 2029 or with the updating of the edition of the test standard.
Aluminium Foil Tape (1502)	"PAL®" AT-38B Class '0' Black Aluminium Foil Tape / Brand & Model : PAL® AT-38B / Material : 38 micron thick aluminium foil with a black coating and coated on one side with permanent synthetic rubber resin adhesive / Application : Sealing of joints for insulation used in ventilating system.	Phenotherm Asia Limited, PRC	19/7/2024	July 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements. b) This assessment letter supersedes our previous one of the same series dated 10.7.2020. c) This assessment is subject to review by July 2029 or with the updating of edition of the test standard.
Aluminium Foil Tape (1506)	"INSUL-PHEN"CW FRBT Black Aluminium Foil Tape / Brand & Model : INSUL-PHEN "CW FRBT" / Material : 38 micro thick black lacquered aluminium foil coated on one side with flame-retardant acrylic adhesive / Application : Sealing of joints in ventilation ductwork or pipework.	Sanby Trading Company Limited, HK	6/8/2024	August 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements.     b) This assessment is subject to review by August 2029.

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TYPE	BRAND NAME / MODELS / DESCRIPTION	MANUFACTURER / AUTHORIZED SUPPLIER	FSD ACCEPTANCE DATE	DATE TO REVIEW (Subject to Renewal)	Remarks
Aluminium Foil Tape (1507)	"INSUL-PHEN"CW 701 Aluminium Foil Tape / Brand & Model : INSUL-PHEN "CW 701" / Material : 240 micron thick glass cloth aluminium foil tape on one side and the other side coated with acrylic adhesive / Application : Sealing of joints in ventilation ductwork or pipework.	Sanby Trading Company Limited, HK	6/8/2024	August 2029	a) No assessment was made on the density and toxicity of smoke generated by the material under fire conditions as that are not our requirements.     b) This assessment is subject to review by August 2029.
Duct Sealant (1509)	"AOBO" 澳波環保 AES-AEROSOL 密封膠 / Brand Name / Model No.: "AOBO" 澳波環保 / AES-AEROSOL 澳波環保密封膠 / Material : Stable, non-toxic, non-flammable polymer lotion, and distributed in the HVAC ductwork system under pressure / Weight : 3.9kg~4.1kg / 4L / Application : Building ventilation duct sealing.	Qingdao AOBO Environmental Protection Technology Co., Ltd. 青島澳波環保科技有限責任公 司	8/8/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire condition. b) This assessment is subject to review by August 2029 or with the updating of the edition of the test standard. c) This letter supersedes our previous assessment letter dated 4.7.2024, ref. FSD LC VSG 316/15.
Sealant (1520)	"Bostik" Intustrip Sealant used for Ventilating System / Brand / Model : Bostik / Intustrip Sealant / Material : Soft adhesive pre-formed strip sealant, based on a hydrocarbon rubber, compound with special additives / Application : Use as a compression seal in ventilating system		16/9/2024		a) No assessment was made on the density and toxicity of smoke generated by the product under fire.     b) This assessment is subject to review by September 2029.
Volume Control Damper (1521)	"Trox" Type EN and RN Self-regulated Volume Control Damper / Brand and Model: "Trox" Type RN CAV Controller and EN Volume Flow Controller / Construction: All metallic construction with galvanized steel sheet / stainless steel casing and internal parts including leaf spring made of stainless steel and plain bearings with PTFE coating. The Polyurethane below insider the controller is in compliance with Classification: VTM-2 when tested to UL94-2013 Rev.12-2021 Section 11 / Other Design Features: All internal wiring and optional equipment and accessories to the controller within the air stream must be fire resisting type.	Trox Air Conditioning Components(Suzhou) Co., Ltd.	12/11/2024		a) Valid certificate shall be maintained;     b) This assessment is subject to review by October 2029.

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Pipe Support (1534)	1 ''	Zhongshan SAIVER WELAIRE Air-Cond. Equip. Co., Ltd., PRC	30/12/2024		a) No assessment was made on the density and toxicity of smoke generated by the material under fire.     b) This assessment is subject to review by December 2029.