Fire Barrier Pass-Through Device

Product Data Sheet

Date: March 2015
Supersedes: New

Product Description & Intended Use

3M™ Fire Barrier Pass-Through Device is a one-piece, hinged metal enclosure, containing a fixed fire resistance intumescent material and foam seals and is **used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetration of insulated metallic pipes**

In addition, the unique intumescent property of this material allows 3M™ Fire Barrier Pass-Through Device to expand and help maintain a firestop penetration seal for integrity (E) against the passage of flame and insulation (I) against the rise of temperature as service penetrations are exposed to fire.

Key Features

- Fire classification up to EI 180 to EN 1366-3
- Tested in minimum 150 mm fire resistance walls (drywalls & masonry) and floors (aerated concrete)
- Strong intumescent property: expands when heated to seal around services consumed by fire.
- Single mounting bracket available for all devices
- Triplex and Sixplex mounting brackets available for square devices.
- The hinged device can be positioned quickly and securely and is also suitable for retrofitting service penetrations

Typical Physical Properties

Category	Description
Colour	Red Powder-Coated Metal
Resistance to Fire in accordance with EN 13501-2	Up to EI 180
Reaction to fire in accordance with clause 8 of EN 13501-1: 2007+A1:2009	Classification : E
Intumescent expansion ratio (EOTA TR N° 024)	NPD
Curing Time	Not applicable
Airborne Sound Insulation	NPD
Water Permeability	NPD
Working Life	Assumed at 25 years in ETA, clause 1.2, subject to the use in accordance with that clause.
Use Category	Z_1 – Internal conditions with high humidity, excluding temperatures below 0°C. Z_2 – Internal uses in high humidity conditions other than Z_1 Category, excluding temperatures below 0°C.
Durability and serviceability	Z_1 – Internal conditions with high humidity classes including than Z_2 excluding temperatures below 0°C (“internal dry conditions”)

Reference Documents

DoP N°	3M FB PTD 1121-CPR-JA0012
ETA 10/0034 R1	European Technical Approval for 3M™ Fire Barrier Pass-Through Device Validity: from June 2013 to June 2018
ETA 10/0034	European Technical Approval for 3M™ Fire Barrier Pass-Through Device Validity: from September 2010 to September 2015

Performance Characteristics

Supporting Construction		
Flexible Walls Thickness		Min. 150 mm
Note: The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, no parts of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1, is provided within the cavity between the penetration seal and the stud. The partition construction may comprise an insulated or un-insulated cavity.		
Rigid Walls Thickness		Min. 150 mm
Note: The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m3.		
Rigid Floors Thickness		Min. 150 mm
Note: The floor must have a minimum thickness of 150 mm and comprise aerated concrete with a minimum density of 650 kg/m3.		
Specific considerations for supporting construction • The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.		
Apertures Details		
Apertures Sizes in Flexible Walls		
• Square small	Single	65 x 65 mm
	Triplex	65 x 130 mm
	Sixplex	130 x 195 mm
• Square large	Single	105 x 105 mm
	Triplex	105 x 210 mm
	Sixplex	210 x 310 mm
• Round small		Ø 55 mm
• Round large		Ø 115 mm
Apertures Separation		Min. 200 mm
Cross-Sectional Fill		Max. 60% of the of the aperture
Service Support		Min. 350 mm from both faces of the wall Min. 400 mm above a floor
Specific considerations for penetrations seals: • The seals may only be penetrated by the services described in ETA 12/0559 or in this Technical Data Sheet; other parts or support constructions must not penetrate the seal. • The service support construction must be fixed to the building element containing the penetration seal or a suitable adjacent building element, on both sides (walls) of the penetration in such a manner that in the case of fire, no additional load is imposed on the seal. Furthermore it is assumed that this support is maintained for the required period of fire resistance.		

Performance Characteristics
(Continued)

Services in Flexible or Rigid Walls and Rigid Floors (min. 150 mm)	
Cables and pipes shall not be mixed within a single system 3M™ Pass-Through Devices module.	
Metal Pipes	
Copper pipes	19 mm Ø and 0.9 mm wall thickness
Insulated Metal Pipes	
Copper Pipe Insulated Elastomeric	19 mm Ø and 0.9 mm wall thickness insulated with 19 mm thick Continuous Sustained insulation.
Combustible Pipes	
PVC Pipes	Up to 50 mm Ø by 2.4 mm wall thickness

Specific considerations for un-insulated and insulated pipes penetrations seals:

- Single or bundle pipes. See Fire Resistance Classification Chart for details on numbers of cables.
- Pipes must be perpendicular to the seal surface
- Compressed air systems must be switched off by other means in case of fire
- The approval does not address any risks associated with leakage of dangerous liquids or gases caused by failure of the pipe(s) in case of fire
- Classifications for pipes relate to C/U (pipe end capped inside & uncapped outside the furnace) refer to national regulations
- The function of the pipe seal in case of pneumatic dispatch systems, pressurised air systems etc. is guaranteed only when the systems are shut off in case of fire.
- The assessment does not cover the avoidance of destruction of the seal or of the abutting building element(s) by forces caused by temperature changes in case of fire. This has to be considered when designing the piping system.
- The durability assessment does not take account of the possible effect of substances permeating through the pipe on the penetration seal.
- Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3d0 Reaction to Fire performance, when classified according to EN 13501-1.
- Elastomeric insulation shall be continuous and sustained.
- PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

Telecommunication	
Telecommunication / Optical Fibre Cables	15 to 18 mm Ø, sheathed telecommunication/optical fibre cables, single or in bundles*.
Electrical Cable	
Polyolefin Sheathed (H07Z-F)	15.1 to 18.8 mm Ø, 1 x 95 mm²
EPR/Chloroprene Sheathed (H07RN-F)	20.9 to 26.5 mm Ø, 4 x 10 mm²

Specific considerations for cables penetration seals:

- Cables maybe singular or in bundle.
- * Cables bundle – Several cables running in the same direction and bound closely together by mechanical means. See Fire Resistance Classification Chart for details on numbers of cables.
- For tied cable bundles the space between cables shall be sealed.
- The cables type’s covers currently and commonly used in building practice in Europe subject to the cable size, except tied bundles, waveguides and non-sheathed cables (wires). Optical fibre cables are covered. Tied bundles with diameter of less than or equal to the bundle tested made from cables of a diameter not greater than 21 mm are valid.
- See EN 1366-3: 2004-2009 for cables field of direct application details.

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 63.5 mm square

Flexible Wall* ≥ 150 mm							
System compromising of 63.5 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Empty	63.5 mm square	No Services in Device(s)		120	60
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	30 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	19 mm Ø	0.9 mm	19mm	120 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 19 mm Ø	2.4 mm		120 C/U	60 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			120	45
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			120	15
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			120	60

* Flexible Walls = The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, “Type F” Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seals and the stud and minimum 100 mm of insulation of class A1 or A2 according to 13501-1, is provided within the cavity between the penetration seal and the stud. The partition construction may comprise an insulated or un-insulated cavity.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations.

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 102 mm square

Flexible Wall* ≥ 150 mm							
System compromising of 102 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Empty	102 mm square	No Services in Device(s)		120	60
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	30 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	19 mm Ø	0.9 mm	19mm	120 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 50 mm Ø	2.4 mm		120 C/U	60 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			120	60
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			120	60
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			120	60

* Flexible Walls = The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, “Type F” Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seals and the stud and minimum 100 mm of insulation of class A1 or A2 according to 13501-1, is provided within the cavity between the penetration seal and the stud. The partition construction may comprise an insulated or un-insulated cavity.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1
E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations.

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 51 mm round Ø

Flexible Wall* ≥ 150 mm							
System compromising of Ø 51 mm round 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	55 mm Ø	Empty	51 mm Ø	No Services in Device(s)		120	120
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	55 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	30 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	55 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	120 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	55 mm Ø	Centrally located	Up to 19 mm Ø	2.4 mm		120 C/U	90 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	55 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 7 cables			120	60
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 7 cables			120	15
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			120	120

* Flexible Walls = The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, “Type F” Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seals and the stud and minimum 100 mm of insulation of class A1 or A2 according to 13501-1, is provided within the cavity between the penetration seal and the stud. The partition construction may comprise an insulated or un-insulated cavity.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations.

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices Ø 102 mm round

Flexible Wall* ≥ 150 mm							
System compromising of 102 mm round Ø 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	115 mm Ø	Empty	102 mm round Ø	No Services in Device(s)		120	120
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	115 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	30 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	115 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	120 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	115 mm Ø	Centrally located	Up to 50 mm Ø	2.4 mm		120 C/U	NPD
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	115 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 7 cables			120	30
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			120	15
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			120	90

* Flexible Walls = The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, “Type F” Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seals and the stud and minimum 100 mm of insulation of class A1 or A2 according to 13501-1, is provided within the cavity between the penetration seal and the stud. The partition construction may comprise an insulated or un-insulated cavity.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 63.5 mm square

Rigid Wall* ≥ 150 mm							
System compromising of 63.5 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Empty	63.5 mm square	No Services in Device(s)		240	60
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 19 mm Ø	0.9 mm		240 C/U	15 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 50 mm Ø	2.4 mm		240 C/U	60 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	45
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	45
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	30

* Rigid Walls = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 102 mm square

Rigid Wall* ≥ 150 mm							
System compromising of 102 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Empty	102 mm square	No Services in Device(s)		240	90
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 19 mm Ø	0.9 mm		240 C/U	15 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 19 mm Ø	2.4 mm		240 C/U	90 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	45
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	NPD
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	45

* Rigid Walls = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1
E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 51 mm round Ø

Rigid Wall* ≥ 150 mm							
System compromising of 51 mm round 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	55 mm Ø	Empty	51 mm Ø	No Services in Device(s)		240	120
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	55 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	15 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	55 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	55 mm Ø	Centrally located	Up to 43 mm Ø	2.4 mm		240 C/U	240 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	55 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	120
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	180
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	NPD

* Rigid Walls = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 102 mm round Ø

Rigid Wall* ≥ 150 mm							
System compromising of 102 mm round Ø 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	115 mm Ø	Empty	102 mm Ø	No Services in Device(s)		120	90
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	115 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		120 C/U	15 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	115 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	120 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	115 mm Ø	Centrally located	Up to 19 mm Ø	2.4 mm		120 C/U	NPD
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	115 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 7 cables			120	90
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 3 cables			120	NPD
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 7 cables			120	90

* Rigid Walls = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1.Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.

2.PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity

I = Insulation

C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations

NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 63.5 mm square

Rigid Floor* ≥ 150 mm							
System compromising of 63.5 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Empty	63.5 mm square	No Services in Device(s)		240	60
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 19 mm Ø	0.9 mm		240 C/U	30 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Up to 19 mm Ø	2.4 mm		240 C/U	60 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 65x65 mm Triplex: 65x130 mm Sixplex: 130x195 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	60
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	30
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	60

* Rigid Floors = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.

Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 102 mm square

Rigid Floor* ≥ 150 mm							
System compromising of 102 mm square 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Empty	102 mm square	No Services in Device(s)		240	NPD
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 19 mm Ø	0.9 mm		240 C/U	NPD
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	NPD
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Up to 19 mm Ø	2.4 mm		240 C/U	NPD
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	Single: 105 x 105 mm Triplex: 105 x 210mm Sixplex:210 x 310 mm	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	NPD
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	NPD
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	NPD

* Rigid Floors = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 51 mm round Ø

Rigid Floor* ≥ 150 mm							
System compromising of 51 mm round 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	55 mm Ø	Empty	51 mm Ø	No Services in Device(s)		240	240
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	55 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		240 C/U	15 C/U
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	55 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	240 C/U	45 C/U
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	55 mm Ø	Centrally located	Up to 43 mm Ø	2.4 mm		240 C/U	240 C/U
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	55 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			240	240
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			240	NPD
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			240	240

* Rigid Floors = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1

E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Fire Resistance Classification | 3M™ Fire Barrier Pass-Through Devices 102 mm round Ø

Rigid Floor* ≥ 150 mm							
System compromising of 102 mm round Ø 3M™ Fire Barrier Pass-Through Devices, either individual or in block of up to 2 x 3, secured in a single frame							
Blank	Maximum Aperture Size	Position of service(s)	PTD Dimension	No Service Penetrant		E	I
Pass-Through Devices	115 mm Ø	Empty	102 mm Ø	No Services in Device(s)		60	NPD
Metal Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
Copper Pipes (singles or multiple – bundles up to 3 pipes)	115 mm Ø	Centrally located	Up to 19 mm Ø	0.9 mm		60 C/U	NPD
Insulated Copper Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness	Insulation Thickness	E	I
CS Elastomeric Insulation[1]	115 mm Ø	Centrally located	19 mm Ø	0.9 mm	19mm	60 C/U	NPD
Combustible Pipes	Maximum Aperture Size	Position of service(s)	Pipe Diameter	Pipe Wall Thickness		E	I
PVC[2]	115 mm Ø	Centrally located	Up to 50 mm Ø	2.4 mm		60 C/U	NPD
Electrical & Telecom	Maximum Aperture Size	Position of service(s)	Cable Description			E	I
Telecommunications/Optical Fibre Cables	115 mm Ø	Centrally located	Diameter range 15 to 18 mm Ø single or bundles of up to 4 cables			60	NPD
Electrical Cables			Diameter range 15.1 to 18.8 mm, 1 x 95 mm² Polyolefin low smoke and fume sheathed, H07Z-K power cables, single or bundles of up to 4 cables			60	NPD
			Diameter range 20.9 to 26.5 mm Ø, EPR/Chloroprene sheathed to 4 x 10 mm² H07RN-7 power cables, single or bundles of up to 3 cables			60	NPD

* Rigid Floors = The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3.
Note = The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
1. Elastomeric insulation material is defined as a generic insulation material manufactured to EN 14304: 2009 “Thermal insulation products for building equipment and industrial installations. Factory made flexible elastomeric foam (FEF) products. Specification.”, which has a minimum Class Bs3D0 Reaction to Fire performance, when classified according to EN 13501-1.
2. PVC-U to EN 1452-1, EN 1329-1, EN 1453-1 and PVC-C to EN 1566-1
E = Integrity
I = Insulation
C/U = Pipe end capped inside & uncapped outside the furnace. For further information refer to national regulations
NPD = No Performance Determined

Handling

3M™ Fire Barrier Pass-Through Device require no special measures for safe handling or protection against explosion fires.

Not for use

- Do not apply 3M™ Fire Barrier Pass-Through Device when surrounding temperature is than less 0°C and in conditions where seals may be exposed to rain or water spray within 18 hours of application.
- Do not apply 3M™ Fire Barrier Pass-Through Device to building materials that bleed oil, plasticizers or solvent (e.g. impregnated wood, oil-based sealants or green or partially vulcanized rubber).
- Do not apply 3M™ Fire Barrier Pass-Through Device to wet or frost-coated surfaces or to areas that are continuously damp or immersed in water.
- Avoid repeated freeze / thaw exposures of the 3M™ Fire Barrier Pass-Through Device prior to installation.

Storage

3M™ Fire Barrier Pass-Through Device packaged in corrugated cardboard boxes. Product is stable under normal storage conditions. Normal stock and stock rotation practices are recommended. Pallets should not be stacked.

- Store dry in a cool place
- Storage temperature: not under 0°C and not over 35°C
- Take care of sufficient ventilation
- Keep out of reach of children

Shelf Life

3M™ Fire Barrier Pass-Through Device shelf life is indefinite when stored in original unopened packaging in a dry warehouse environment.

Maintenance

3M™ Fire Barrier Pass-Through Device does not required maintenance when installed in accordance with the applicable European Technical Approval (ETA - 10/0034) and the 3M™ Fire Barrier Pass-Through Device Installation Guide.

Repair

3M™ Fire Barrier Pass-Through Device which are damaged should not be used. Once installed, if any section of the 3M™ Fire Barrier Pass-Through Device is damaged and the following procedure will apply:

- Remove the damaged 3M™ Fire Barrier Pass-Through Device and replaced it with a new 3M™ Fire Barrier Pass-Through Device in accordance with the applicable ETA – 10/0034 or with the Installation Guide.

Precautionary Information

Refer to product label and Material Safety Data Sheet for health and safety information before using the product.
For information please contact your local 3M Office.
www.3M.com

For Additional Information	To request additional product information or to arrange for sales assistance, call:
Important Notice	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

3M United Kingdom PLC 3M House, 28 Great Jackson Street, Manchester, M15 4PA	Product Information : Tel 0870 60 800 50 Fax 0870 60 700 99	3M Ireland Limited The Iveagh Building The Park, Carrickmines Dublin 18, Ireland	Customer Service : Tel (01) 280 3555 Fax (01) 280 3509