Tenmat

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Tenmat OverSleeve

Intumescent wrap/sleeve to firestop combustible pipes and insulated non-combustible pipes

Passive Fire Protection

Product Description

The Tenmat OverSleeve is a universal, one-product-fits-all solution for the firestopping of combustible and insulated metal pipes.

The thin and flexible intumescent is quickly and simply wrapped directly around combustible pipes or directly on top of pipe insulation without the need to cut back the insulation, ensuring that thermal and vapour seal performance is maintained.

The red branded foil can be easily checked and identified on site to confirm that firestopping is in place.

The unique FF107 intumescent material rapidly expands to seal off combustible pipes or the insulation around non-combustible pipes to provide up to EI240 minutes fire rating.

Product Details

- Up to EI240 Minutes Fire Rating, see overleaf
- Thin/Low Profile (3mm thick)
- Can be retrofitted
- One Product Solution - suits a wide range of pipe materials, diameters & insulation types
- Simple Installation - no fixings, anchors or drilling required
- No cut back of insulation– maintains vapour seal

Approved Applications

- Combustible Pipes up to 160mm
- Pipe Materials including PVC-U, PVC-C, HDPE, ABS, PP
- Non-Combustible Pipes from 15mm to 219mm
- Copper, Steel and Cast Iron Insulated Pipes
- Phenolic Foam or Glass Mineral Wool Pipe Insulation
- Insulation thickness range 15 mm - 50 mm
- Suitable for Drywall/Plasterboard Partitions, Ablative Coated Fire Batts, Solid Walls and Concrete Floors
- Lubrizol Approved
- FBC System Compatible

FBC™ SYSTEM COMPATIBLE

NBS

Tenmat

Sizes

The Tenmat OverSleeve is supplied as flat strips to be wrapped around combustible pipes or insulated non-combustible pipes. The standard supplied sizes are shown below:

Standard	Length	Width	Thickness	Contents of Pack as Supplied
Standard	1000mm	180mm	3mm	5x metre strips, plus repair tape
Standard	1000mm	280mm	3mm	5x metre strips, plus repair tape

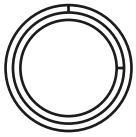
Other widths and lengths can be available upon request, please contact Tenmat

Number of Layers

Depending on the pipe type and diameter the OverSleeve will need to be wrapped round the pipe in either one, two or three layers. See below images:

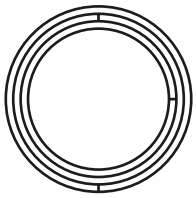
One Layer

One layer of 3mm, typically up to 50/63mm diameter pipes.



Two Layers

Two layers of 3mm, typically up to 125mm diameter pipes.

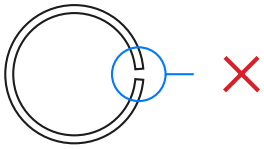


Three Layers

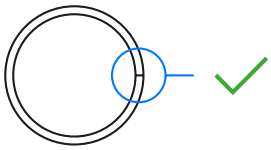
Three layers of 3mm, typically up to 160mm diameter pipes.

NB. For larger pipe diameters which require >1000mm length of OverSleeve, the length can be made up of more than length of OverSleeve and the join sealed with the supplied glass scrim reinforced repair tape, minimum 200mm length of repair tape.

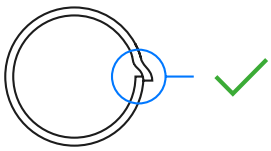
Join Detail



Gap = **Not** approved



Butt joint = OK



Overlap = OK

Lengths of OverSleeve

When measuring and cutting the OverSleeve to ensure the correct length is wrapped around the pipe, it is important to ensure that the OverSleeve as a minimum has a tight butt joint and no gap is left between the meeting edges, as shown in the previous images. The length required should always be double checked on site prior to installation.

To provide a rough guide for approximate calculations on quantity of OverSleeve required, the below table is provided as a guide for some of the most common pipe diameters:

Diameter (mm)	Wrap Length Required (mm)		
	1 layer	2 layers	3 layers
40	135	289	462
50	167	352	556
63	207	434	679
75	245	509	792
82	267	553	858
90	292	603	933
110	355	729	1122
114	368	754	1159
125	402	823	1263
140	449	917	1404
160	512	1043	1593

NB. One length of OverSleeve = 1000mm (1 metre), pack quantity = 5000mm (5 metres)

Storage & Durability

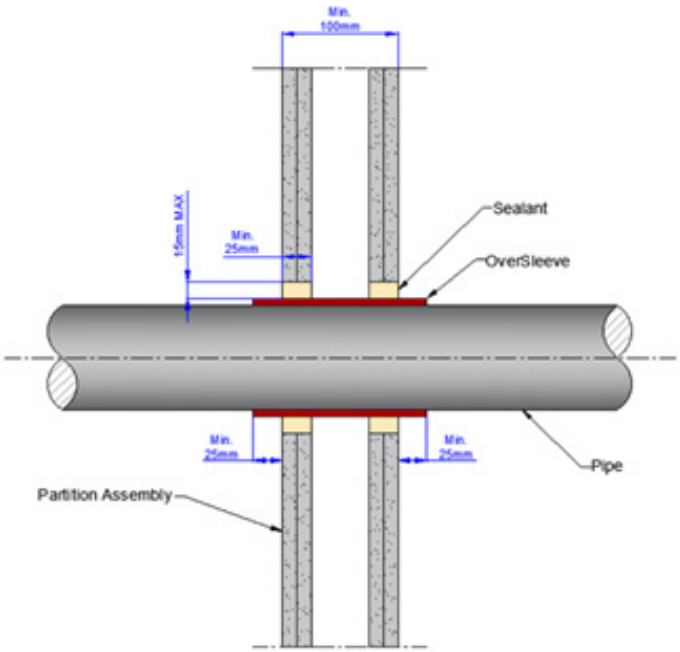
Material Grade	FF107
Storage	Dry, ambient
Transportation storage temperature	-20°C to +70°C
Working Life	48 years
Durability	Type X intended for use in conditions exposed to weather (UV, rain, frost)
Smoke / Halogen Content	Low Smoke / Zero Halogen

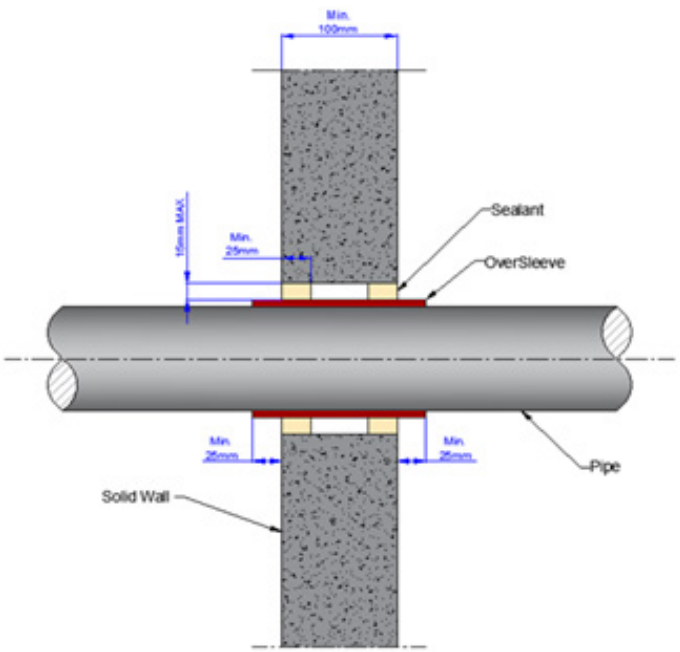
Compatible with common pipe materials including Phenolic and Glasswool Insulation, Copper, Steel, PVC, PE, PE-X, PP, ABS, CPVC - FBC System Compatible

Image shows the product as supplied in flat strips and how it will appear once wrapped around a pipe.

Tested Applications

Flexible & Solid Walls ≥ 100mm Combustible Pipes





PVC-U & PVC-C Pipe Specifications
PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI120 U/U, C/U, U/C, C/C

PP Pipe Specifications
PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	EI120 U/C, C/C
110	3.4	2 layers (6mm)	EI120 U/C, C/C
160	4.9	3 layers (9mm)	EI120 U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications
PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	EI120 U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	EI120 U/U, C/U, U/C, C/C
125-140	4.3-14.6	3 layers (9mm)	EI120 U/C, C/C
140-160	9.5-14.6	3 layers (9mm)	EI120 U/C, C/C
160	9.5	3 layers (9mm)	EI120 C/U, U/C, C/C

The OverSleeve should be positioned within the wall so that the minimum protrusion both sides is maintained.

If the wall is thicker than 100mm then the OverSleeve must be of sufficient length to maintain the 25mm protruding from each face (Standard 180mm length of OverSleeve is suitable for double layer board partitions or solid walls up to 130mm thick, longer OverSleeve available on request).

A maximum annular gap of 15mm between the OverSleeve and partition is allowable if it is fully sealed to a min. depth of 25mm both sides of the wall by FSi Pyrocoustic Fire Resistant Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 2 layers of min. combined 25mm thickness Gypsum boards in accordance with EN 520.

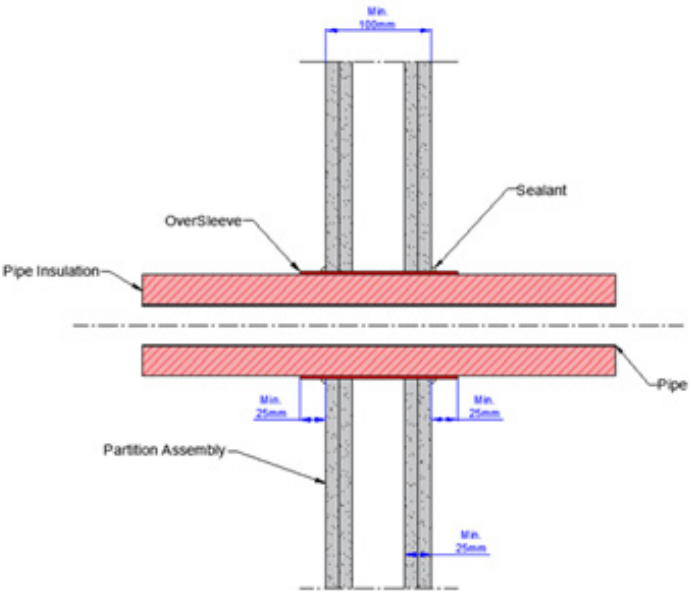
Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

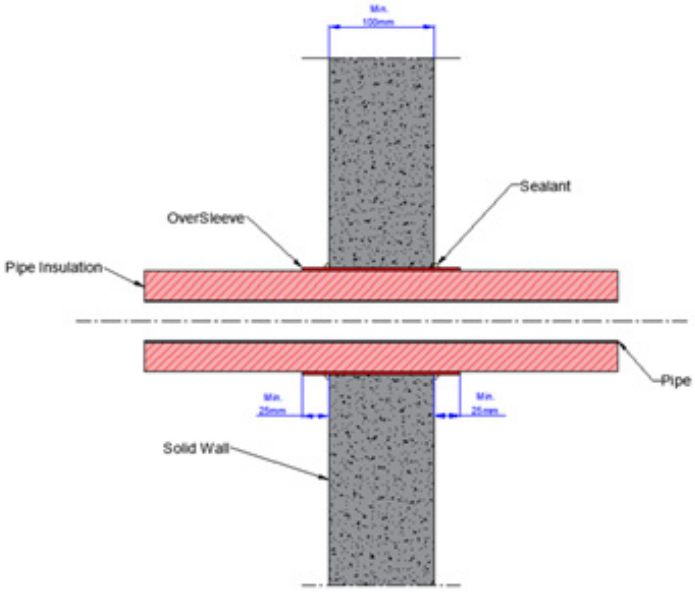
There must be a minimum 200mm separation between seals.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

Flexible & Solid Walls ≥ 100mm
Non-Combustible Insulated Pipes





Copper, Steel & Cast Iron Insulated Pipes
Or other pipes of class A1 in accordance with EN 13501-1 with a melting or decomposition point higher than the nominal furnace temperature at the intended classification time (e.g. 1049°C at 120 minutes)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Pipe Insulation Type	Pipe Insulation Thickness (mm)	Fire Classification
≤15	≥1.0	1 layer (3mm)	Phenolic*	15-40	EI120 C/U, U/C, C/C
			Glasswool	25-30	E120 EI90 C/U, U/C, C/C
				≥30	EI120 C/U, U/C, C/C
15-42	≥1.2	1 layer (3mm)	Phenolic*	20-40	EI120 C/U, U/C, C/C
			Glasswool	≥50	EI120 C/U, U/C, C/C
42-67	≥1.2	1 layer (3mm)	Phenolic*	20-25	E120 EI60 C/U, U/C, C/C
≤67	≥1.2	1 layer (3mm)	Glasswool	≥25	E120 EI60 C/U, U/C, C/C
≤108	≥1.2	1 layer (3mm)	Phenolic*	25-39	E120 EI60 C/U, U/C, C/C
				40	E120 EI90 C/U, U/C, C/C

Tested Applications

Steel & Cast Iron Insulated Pipes

Copper pipes are not covered by the below test evidence

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Pipe Insulation Type	Pipe Insulation Thickness (mm)	Fire Classification
≤165	≥5.0	1 layer (3mm)	Phenolic*	25-40	E120 EI60 C/U, U/C, C/C
				40	E120 EI90 C/U, U/C, C/C
≤219	≥6.35	1 layer (3mm)	Phenolic*	25	E120 EI60 C/U, U/C, C/C
				50	EI90 C/U, U/C, C/C

** Foil faced phenolic insulation with minimum Euroclass B - s1, d0*

The OverSleeve should be positioned within the wall so that the minimum protrusion both sides is maintained.

If the wall is thicker than 100mm then the OverSleeve must be of sufficient length to maintain the 25mm protruding from each face (Standard 180mm length of OverSleeve is suitable for double layer board partitions up to 130mm thick, longer OverSleeve available on request).

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 2 layers of min. combined 25mm thickness Gypsum boards in accordance with EN 520

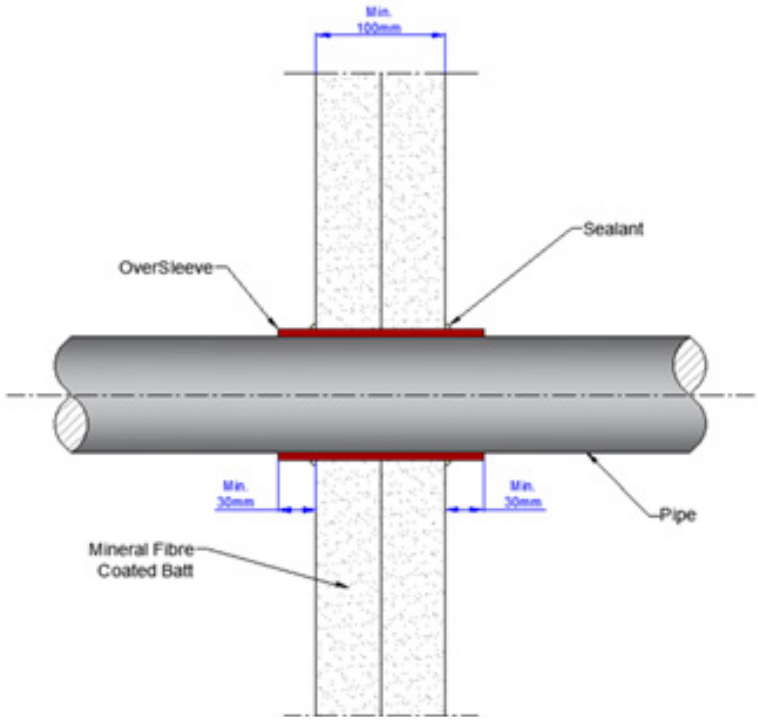
Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

There must be a minimum 200mm separation between seals.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

2 x 50mm Ablative Coated Panels/Batts with Combustible Pipes



PVC-U & PVC-C Pipe Specifications

PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	E120 EI60 U/U, C/U, U/C, C/C

PP Pipe Specifications

PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	E120 EI90 U/C, C/C
110	3.4	2 layers (6mm)	E120 EI90 U/C, C/C
160	4.9	3 layers (9mm)	E120 EI90 U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications
PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	E120 EI60 U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	E120 EI60 U/U, C/U, U/C, C/C
125-140	4.3-14.6	3 layers (9mm)	E120 EI90 U/U, C/U, U/C, C/C
140-160	9.5-14.6	3 layers (9mm)	E120 EI90 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	E120 EI60 U/U, C/U, U/C, C/C

The OverSleeve must be of sufficient length to maintain the min. 30mm protruding from each face of the Ablative Coated Panel/Batt (Standard 180mm width of OverSleeve is suitable for ablative coated batt installation up to 120mm thick).

Wider OverSleeves (>180mm) available for >120mm thickness of Ablative Coated Panels/Batts.

Tested and approved Ablative Coated Panel/Batt is FSi Stopseal Batt.

The OverSleeve should be fitted into tight fitting holes through the ablative coated panel and sealed with a 3mm bead of FSi Pyrocoustic Fire Resistant Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 2 layers of min. combined 25mm thickness Gypsum boards in accordance with EN 520.

The aperture created for the Ablative Coated Batt must be lined with steel stud and 2x12.5mm Type F Gypsum Boards. Aperture lining is not required when installed within Rigid Walls.

Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

Max. Ablative Coated Batt opening size 1200mm x 525mm.

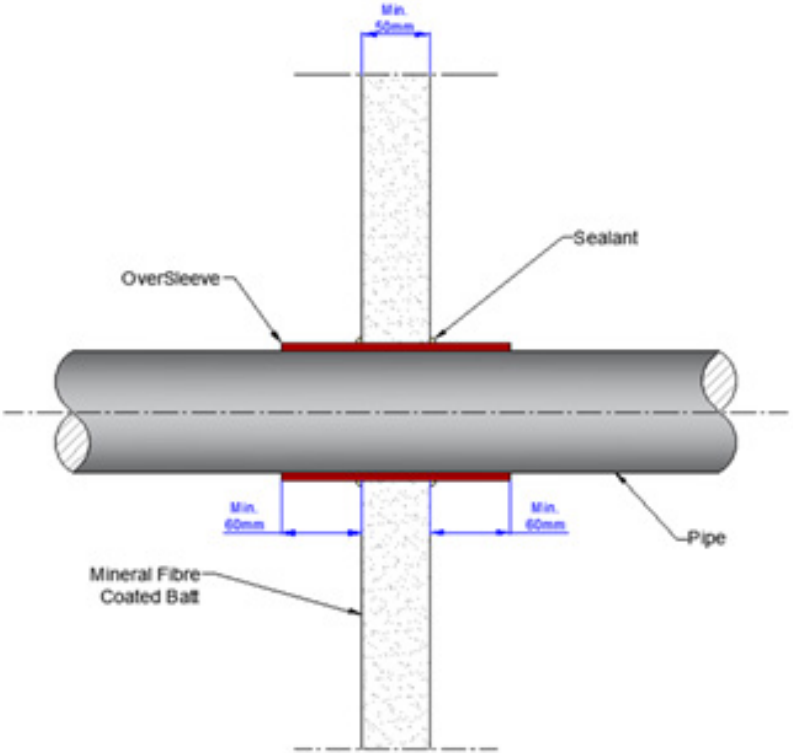
Minimum separation of services from the edge of the aperture 75mm.

Minimum separation between services of 40mm.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

1 x 50mm Ablative Coated Panels/Batts with Combustible Pipes



PVC-U & PVC-C Pipe Specifications

PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI30 U/U, C/U, U/C, C/C

PP Pipe Specifications

PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	EI30 U/C, C/C
110	3.4	2 layers (6mm)	EI30 U/C, C/C
160	4.9	3 layers (9mm)	EI30 U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications

PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
125-140	4.3-14.6	3 layers (9mm)	EI30 U/C, C/C
140-160	9.5-14.6	3 layers (9mm)	EI30 U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI30 U/U, C/U, U/C, C/C

The OverSleeve must be of sufficient length to maintain the min. 60mm protruding from each face of the Ablative Coated Panel/Batt (Standard 180mm width of OverSleeve is suitable for ablative coated batt installation up to 60mm thick).

Tested and approved Ablative Coated Panel/Batt is FSi Stopseal Batt.

The OverSleeve should be fitted into tight fitting holes through the ablative coated panel and sealed with a 3mm bead of FSi Pyrocoustic Fire Resistant Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 1 layers of min. combined 12.5mm thickness Gypsum boards in accordance with EN 520.

The aperture created for the Ablative Coated Batt must be lined with steel stud and 1x12.5mm Type F Gypsum Boards. Aperture lining is not required when installed within Rigid Walls.

Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

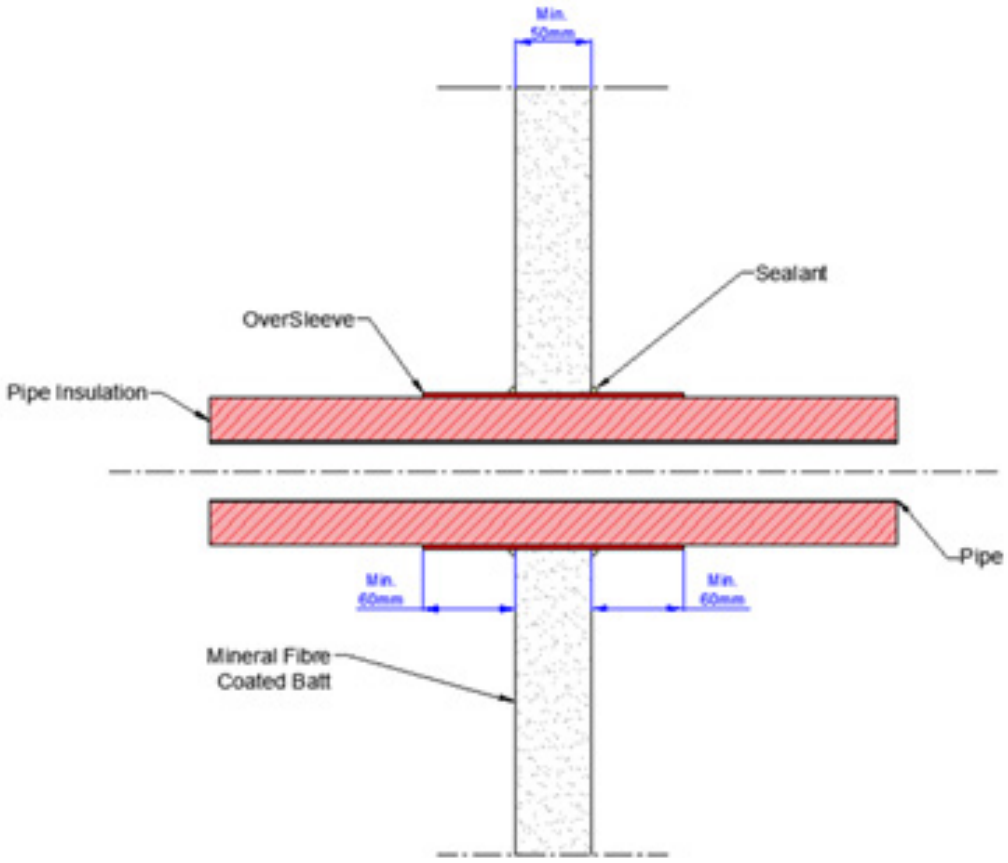
Max. Ablative Coated Batt opening size 1200mm x 525mm.
Minimum separation of services from the edge of the aperture 100mm.

Minimum separation between services of 70mm.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

1 x 50mm Ablative Coated Panels/Batts
Non-Combustible Insulated Pipes



Copper, Steel & Cast Iron Insulated Pipes
Or other pipes of class A1 in accordance with EN 13501-1 with a melting or decomposition point higher than the nominal furnace temperature at the intended classification time (e.g. 1049°C at 120 minutes)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Pipe Insulation Type	Pipe Insulation Thickness (mm)	Fire Classification
≤15	≥1.0	1 layer (3mm)	Phenolic*	15	E120 EI30 C/U, U/C, C/C
≤42	≥1.2	1 layer (3mm)	Phenolic*	20	E120 EI30 C/U, U/C, C/C
				20-40	E90 EI30 C/U, U/C, C/C
42-67	≥1.2	1 layer (3mm)	Phenolic*	20	E90 EI30 C/U, U/C, C/C
67-108	≥1.2	1 layer (3mm)	Glaswool	20-40	E60 EI30 C/U, U/C, C/C

** Foil faced phenolic insulation with minimum Euroclass B - s1, d0*

Tested Applications

The OverSleeve must be of sufficient length to maintain the min. 60mm protruding from each face of the Ablative Coated Batt (Standard 180mm length of OverSleeve is suitable for Ablative Coated Batts of 50mm or 60mm thick).

Approved Ablative Coated Batts are Rockwool Firepro Ablative Coated Batt.

OverSleeve must be sealed with Rockwool Firepro Acoustic Intumescent Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 2 layers of min. combined 25mm thickness Gypsum boards in accordance with EN 520.

The aperture created for the Ablative Coated Batt must be lined with steel stud and 2x12.5mm Type F Gypsum Boards. Aperture lining is not required when installed within Rigid Walls.

Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m^3 (wall type A) or concrete or masonry with a minimum density of 1100 kg/m^3 (wall type B).

Max. Ablative Coated Batt opening size 1200mm x 550mm.

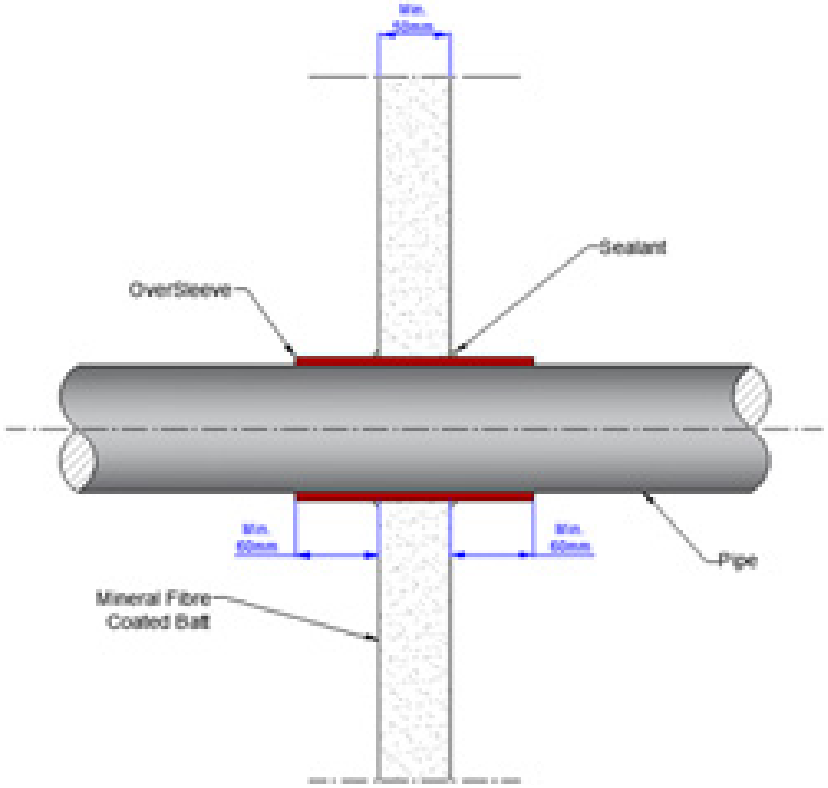
Minimum separation of services from the edge of the aperture 75mm.

Minimum separation between services of 40mm.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

1x 50mm Ablative Coated Panels/Batts Combustible Pipes



PVC-U & PVC-C Pipe Specifications

PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI30 U/U, C/U, U/C, C/C

PP Pipe Specifications

PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	EI30 U/C, C/C
110	3.4	2 layers (6mm)	EI30 U/C, C/C
160	4.9	3 layers (9mm)	EI30 U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications
PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	EI30 U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	EI30 U/U, C/U, U/C, C/C
125-140	4.3-14.6	3 layers (9mm)	EI30 U/C, C/C
140-160	9.5-14.6	3 layers (9mm)	EI30 U/C, C/C

The OverSleeve must be of sufficient length to maintain the min. 60mm protruding from each face of the Ablative Coated Panel/Batt (Standard 180mm width of OverSleeve is suitable for ablative coated batt installation up to 60mm thick).

PFC Corofil Coated Panel System (CCPS) and FSi Stopseal Batt are both approved.

The OverSleeve should be fitted into tight fitting holes through the ablative coated panel and sealed with a 3mm bead of PFC Corofil Acoustic Intumescent Sealant (CAIS) or FSi Pyrocoustic Fire Resistant Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 1 layers of min. combined 12.5mm thickness Gypsum boards in accordance with EN 520.

The aperture created for the Ablative Coated Batt must be lined with steel stud and 1x12.5mm Type F Gypsum Boards. Aperture lining is not required when installed within Rigid Walls.

Rigid Walls must be the same thickness or greater and comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

Max. Ablative Coated Batt opening size 1200mm x 525mm.

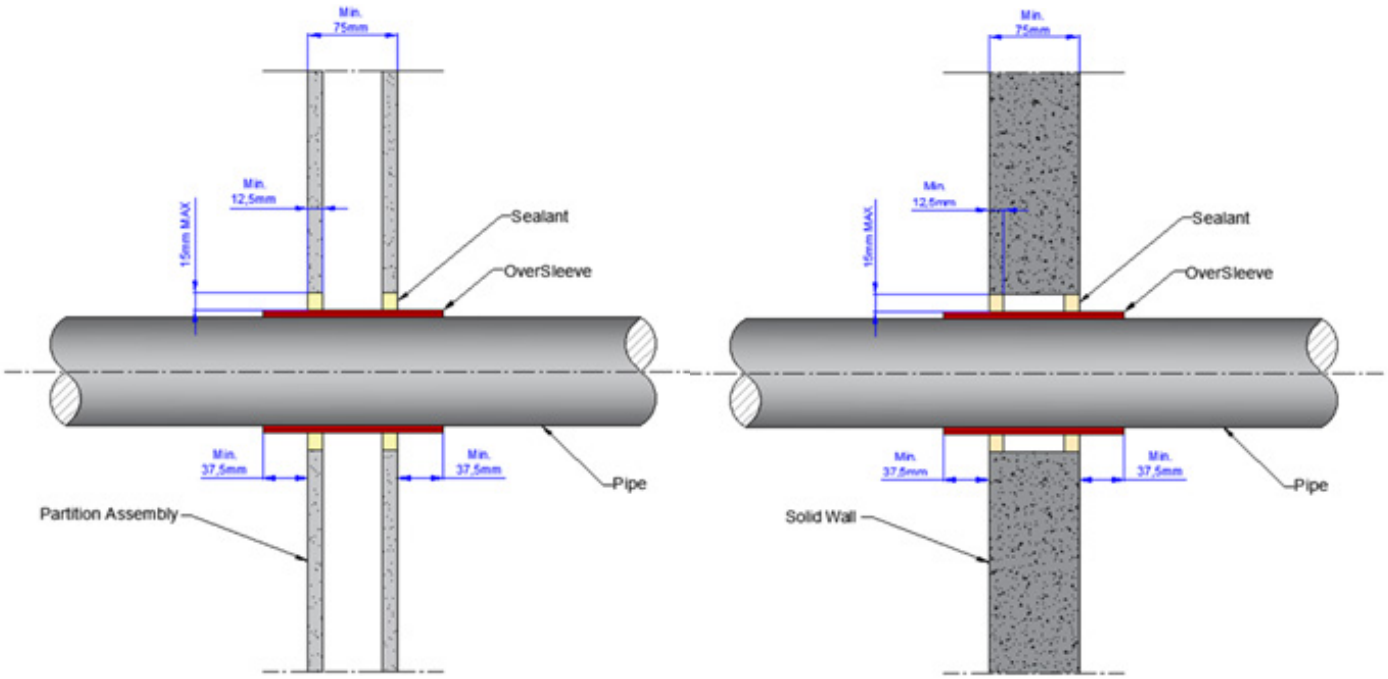
Minimum separation of services from the edge of the aperture 100mm.

Minimum separation between services of 70mm.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

Flexible & Solid Walls ≥ 75mm
Combustible Pipes



PVC-U & PVC-C Pipe Specifications

PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI30 (E60) U/U, C/U, U/C, C/C

PP Pipe Specifications

PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	EI30 U/C, C/C
110	3.4	2 layers (6mm)	EI30 U/C, C/C
160	4.9	3 layers (9mm)	EI30 U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications

PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	EI30 (E60) U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	EI30 (E60) U/U, C/U, U/C, C/C
125-140	4.3-14.6	3 layers (9mm)	EI30 (E60) U/U, C/U, U/C, C/C
140-160	9.5-14.6	3 layers (9mm)	EI30 (E60) C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI30 (E60) U/U, C/U, U/C, C/C

The OverSleeve should be positioned within the wall so that the minimum protrusion both sides is maintained.

If the wall is thicker than 75mm then the OverSleeve must be of sufficient length to maintain the 37.5mm protruding from each face (Standard 180mm length of OverSleeve is suitable for single layer board partitions up to 105mm thick, longer OverSleeve available on request).

A maximum annular gap of 15mm between the OverSleeve and partition is allowable if it is fully sealed to a depth of 12.5mm by FSi Pyrocoustic Fire Resistant Sealant.

For flexible walls constructed with steel studs then the wall can be fitted with or without cavity insulation.

Partition must be of the same or greater thickness and the same or higher fire resistance classification in accordance with EN 13501-2 with min. 1 layer of min. 12.5mm thick Gypsum boards in accordance with EN 520

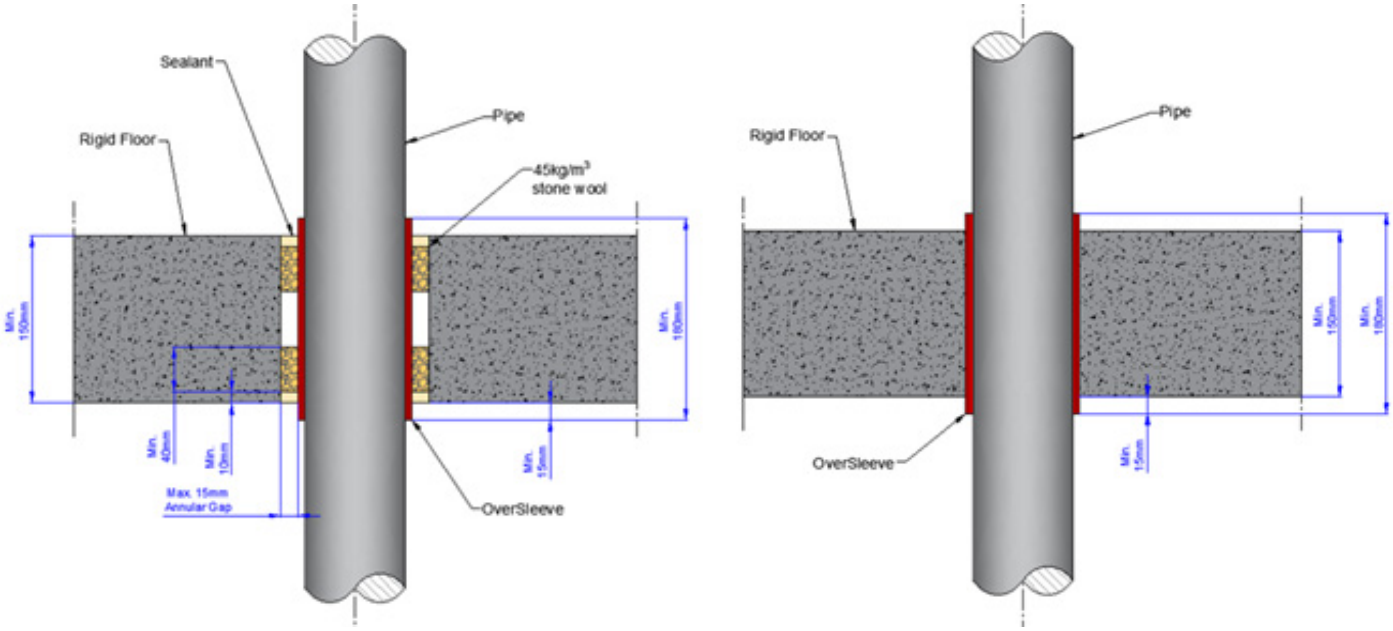
Rigid Walls must comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m³ (wall type A) or concrete or masonry with a minimum density of 1100 kg/m³ (wall type B).

There must be a minimum 200mm separation between seals.

A support must be provided each side of the wall a maximum of 400mm from the surface of the wall.

Tested Applications

Solid Floors ≥ 150mm
Combustible Pipes



PVC-U & PVC-C Pipe Specifications

PVC-U pipe according to EN 1329-1, EN ISO 1452-2, EN ISO 15493 and EN 1453-1 & PVC-C according to EN 1566-1, EN ISO 15493 & EN ISO 15877-2

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-12	1.0-3.7	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
12-32	1.6-3.7	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
32-40	1.9-3.7	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
40-50	2.4-3.7	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
50-63	3.0-8.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
63-110	3.2-8.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
110-125	4.8-8.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
125-140	5.4-8.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
140-160	6.2-9.5	3 layers (9mm)	EI240 U/U, C/U, U/C, C/C

Tested Applications

PE, ABS, SAN+PVC, PE-X Pipe Specifications

PE pipe according to EN 1519-1, EN 12666-1, EN ISO 15494 & EN 12201-2, PE-X pipes in accordance with EN ISO 15875-2, ABS pipes according to EN 1455-1 & EN ISO 15493. SAN+PVC pipes according to EN 19220

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
0-32	2.0-5.8	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
32-40	2.4-5.8	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
40-50	3.0-5.8	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
50-63	3.8-5.8	1 layer (3mm)	EI240 U/U, C/U, U/C, C/C
63-110	4.2-11.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
110-125	7.4-11.4	2 layers (6mm)	EI240 U/U, C/U, U/C, C/C
125-160	9.5-14.6	3 layers (9mm)	EI240 U/U, C/U, U/C, C/C
125-140	4.3-9.5	3 layers (9mm)	EI240 U/C, C/C

PP Pipe Specifications

PP pipe (Polypipe Terrain Q)

Pipe Diameter (mm)	Pipe Wall Thickness (mm)	No. of Layers (thickness) of OverSleeve	Fire Classification
50	1.8	1 layer (3mm)	EI240 U/C, C/C
110	3.4	2 layers (6mm)	EI240 U/C, C/C
160	4.9	3 layers (9mm)	EI240 U/C, C/C

The OverSleeve must be a minimum of 180mm long and fitted so that 15mm is protruding below the soffit of the floor.

If the floor is thicker than 150mm then the OverSleeve can remain at 180mm long as long as the 15mm protruding from below the floor is maintained. If desired, the OverSleeve can extend above and below the floor (wider OverSleeves >180mm can be supplied on request).

A maximum annular gap of 15mm between the OverSleeve and floor assembly is acceptable if it is fully sealed with minimum 10mm deep FSi Pyrocoustic Fire Resistant Sealant on minimum 40mm deep backing of minimum 45kg/m³ density stonewool on both faces / soffit of floor and top of floor or 15mm down from the top of the OverSleeve if that is recessed into the floor.

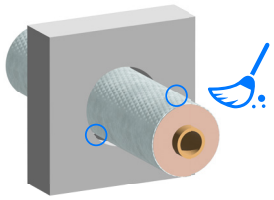
A support must be provided above the floor side a maximum of 400mm from the surface of the floor.

The OverSleeves must have a minimum separation of 200mm form the next adjacent seal.

The floor must have a minimum thickness of 150mm and comprise aerated concrete, concrete or masonry with a minimum density of 650 kg/m³. The floor shall be classified in accordance with EN13501-2 for the required fire resistance period or fulfil the requirements of the relevant Eurocode.

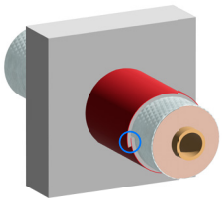
Installation Instructions

Partitions, Solid Walls and Solid Floors



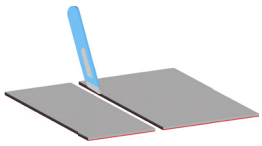
Step 1

Ensure the aperture through the wall or floor and the outside of the pipe/ pipe insulation is clean and free from dust and debris.



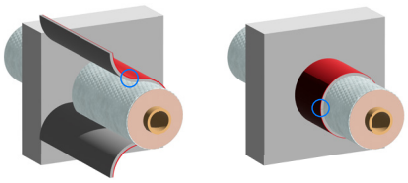
Step 2

Measure the circumference of the pipe/pipe insulation and calculate the correct length of OverSleeve required taking into account the number of layers needed. Ensure sufficient length is available to create as a minimum a tight butt joint with the meeting edges of the OverSleeve once it is wrapped around the pipe.



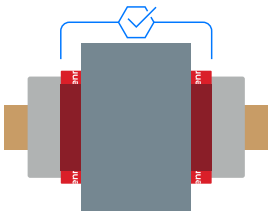
Step 3

Cut the OverSleeve to length using a sharp knife, ensure a straight cut to avoid leaving any gaps once wrapped around the pipe.



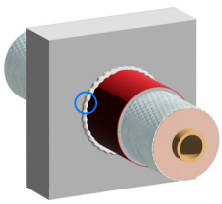
Step 4

Wrap the OverSleeve around the pipe to achieve the correct number of layers required (see performance tables).
For larger pipe diameters which require >1000mm length of OverSleeve, the length can be made up of more than length of OverSleeve and the join sealed with the supplied glass scrim reinforced repair tape, minimum 200mm wide strip.
Once the OverSleeve is wrapped around the pipe, then use the supplied glass scrim reinforced repair tape to secure in place. A 200mm length of repair tape should be used with min. 100mm overlap.



Step 5

Once positioned on the pipe, slide the OverSleeve into position ensuring that the correct protrusion is achieved either side of the wall or the underside/soffit of the floor.



Step 6

Any remaining annular gaps up to 15mm in Partition / Solid Walls / Concrete Floors must be filled with intumescent sealant, see performance tables for correct type, depths and detail.

Installation Instructions

Ablative Coated Panels / Batts

The Ablative Coated Panels/Batts must be cut to ensure a snug fit around the OverSleeve with all joints between the OverSleeve and the panel/batt to be sealed with a 3mm bead of sealant.

Ensure the OverSleeve is centralised within the panel/batt and ensure that the correct minimum protrusion of OverSleeve is achieved on both sides of the wall (see performance tables for more information.

The panels/batts must be installed in a lined aperture, see performance table notes for correct details of aperture lining.

Otherwise follow the Ablative Coated Panel / Batt manufacturer details for the correct installation into the wall.

Tools / Fixings

- Knife
- Measuring tape
- Hole cutting tools as required for substrate

Intended Use

Around pipes used for the movement of foul or clean water, hot water and cold water.

Maintenance

No active maintenance required, where alterations are made around the product it should be checked visually to ensure that the product is still installed as per fitting instructions and tested systems.

Storage

Both un-cut and cut products should be packed to prevent movement and abrasion during transit and to prevent absorption of water. Otherwise normal safe precautions for storage can be used. To avoid damage and distortion, store on a smooth level surface, in a fully supported position off the ground and in a dry place.

FF107 is packed in card cartons and is not considered to be a dense material, but care should be taken not to exceed safe working loads for equipment and storage shelves or racks.

Notes

Tenmat OverSleeve

FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® piping systems and products made with TempRite® Technology." "The FBC System Compatible Logo, FBC™, FlowGuard Gold®, BlazeMaster®, Corzan®, and TempRite® are trademarks of Lubrizol Advanced Materials, Inc. or its affiliates.

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