Northern Fire Engineering Ltd

Technical Data Sheet

Protecta FR Fire Wraps

Product Description

Protecta FR fire wraps provide a robust and economic fire seal to provide fire resistance in concrete and blockwork compartment walls and floors where openings in these construction elements are formed to accommodate building services. In a fire attack situation, the intumescent lining within the fire wrap expands to form a robust char barrier which prevents the passage of flames and hot gases through voids created by thermal degradation of the building services and in additon restricts temperature rise on the non-fire side of the wall or floor.

Protecta FR fire wraps are made from multiple layers of a flexible water-resistant intumescent material contained within a polythene sleeve. The fire wraps are fastened around services with an adhesive tab. Protecta FR fire wraps are supplied in 6 standard sizes. Protecta FR fire wraps are particularly suitable when fittings are located close to the wall or floor and where the fire seal requires installing within the depth of the separating element.

Fire Performance

Tested in accordance with:

EN1363-1:1999 & EN1366-3:2004, BS476-Part 20:1987

Protecta FR fire wraps can be used as a fire seal for thermoplastic pipes and electrical cables in large bunches.

Construction/Service	Integrity	Insulation
Mineral wool boards:-		
plastic pipes	90 mins	90 mins
Masonry walls & concrete floors:-		
cable bunches	240 mins	240 mins
plastic pipes	240 mins	240 mins
plastic pipes >160 <= 250mm	180 mins	180 mins

Physical Properties

Composition:	Plastic sleeve with intumescent liner
Intumescent activation temperature:	Approximately 140° C
Intumescent expansion pressure:	0.7N/mm2
Intumescent volume expansion:	> x 25
Service temperature:	-15°C - +75°C

Dimensional Data

Size	Fire rating (mins)	Width (mm)	Thickness (mm)
55mm	240	50	3.6
82mm	240	50	3.6
110mm	90*/180/240	50/75/50	3.6/1.8/3.6
125mm	240	75	3.6
160mm	180/240	75	5.4/7.2
250mm	180	75	12.6

* in mineral wool boards

Protecta FR Fire Wraps contain no hazardous materials and are asbestos free
This data sheet should be read in conjunction with the MSDS for this product

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Typical Installation Instructions

Fig A. Cast into to Concrete Slab

1. Please refer to typical detail shown.
2. Ensure there is sufficient annular space around the pipe or cables to allow for the thickness of fire wrap (see dimensional data).
3. Position a fire wrap around the pipe/cables and fasten using the self-adhesive tab. Slide the wrap along the pipe/cables so that the edge is flush with the soffit of the floor.
4. Once the fire wrap is securely fastened, fill the annular space with Protecta FR Mortar or other solid non-combustible material.
5. Check that the edge of the fire wrap is fully visible at the surface.

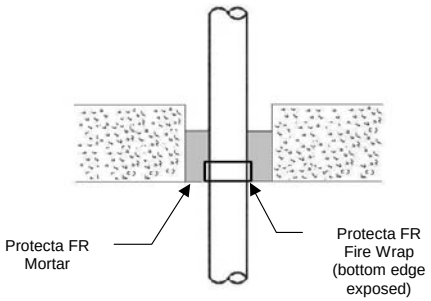

Fig B. Cast into Concrete/Masonry Blockwalls

1. Please refer to the detail shown.
2. A fire wrap is required on both sides of the wall unless the fire risk is limited to 1 side only.
3. Ensure there is sufficient annular space around the pipe or cables to allow for the thickness of fire wrap (see dimensional data).
4. Position a fire wrap around the pipe/cables and fasten using the self-adhesive tab. Slide the wrap along the pipe/cables so that the edge is flush with one side of the wall. Repeat this for the other side of the wall.
5. Once the fire wrap is securely fastened, fill the annular space with Protecta FR Mortar or other solid non-combustible material.

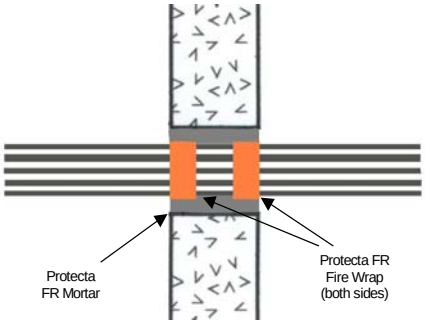

Fig C. Cast-into Mineral Wool Boards

1. Please refer to the detail shown.
2. Ensure there is sufficient annular space around the pipe to allow for the thickness of fire wrap (see dimensional data).
3. Position a fire wrap around the pipe and fasten using the self-adhesive tab. Slide the wrap along the pipe so that the wrap is fully positioned centrally within the mineral wool board.
4. Once the fire wrap is securely fastened, ensure any holes or gaps between the pipe and the mineral wool board are sealed using Protecta FR Intumescent mastic.