



Fyreset Mortar

Miscellaneous Service Penetrations

**Up To 4 Hours
Fire Protection**
(to AS 1530.4 - 1997)

Fyreset Mortar

Description

Fyreset Mortar is a hydraulic cement compound specially formulated for fire stopping of service penetrations and openings. With on-site addition of water it forms a lightweight, low-slump mix for installation around pipe or cable penetrations or unpenetrated in building walls and floors.

Fyreset Mortar is available in 20kg bags and is grey in colour to suit concrete installations.

Applications

Fyreset Mortar is used for backfilling and panel forming in wall and floor openings where a specific FRL has to be maintained.

- Sealing of cables and pipe penetrations.
- Ideal where difficult penetrations require complex cutting and shaping of preformed materials.
- Suitable for use in walls and floors

Advantages

- Tested to AS1530.4 and AS 4072.1 for fire ratings up to 4 hours
- Forms easily around multiple service penetrations
- Wide range of fire tested applications.
- Mixes easily with water to give a lightweight, high build mix
- Cures to a neutral grey colour
- Equivalent fire rating to concrete
- Readily cut, drilled and shaped with ordinary wood working tools

Specification and Testing

SPECIFICATION:

Openings containing service penetrations to be fire stopped to maintain a fire rating of (1,2,3 or 4) hours to AS 1530.4 with Fyreset Mortar to a depth of (...)mm in accordance with Trafalgar Building Products instructions.

TESTING:

Fire tests have been conducted to AS 1530.4, in accordance with AS 4072.1, on concrete floors and concrete, block and brick walls.



Mixing

Each bag mixes with water to form approximately 36 litres of mixture. Mix Fyreset with between 12 and 16 litres of water depending on the required stiffness of the mix.

Storage and Handling

All materials shall be stored under cover, in a manner that will prevent damage (preferably on pallets). Fyreset mortar must be kept dry at all times.

Thicknesses for FRLs*

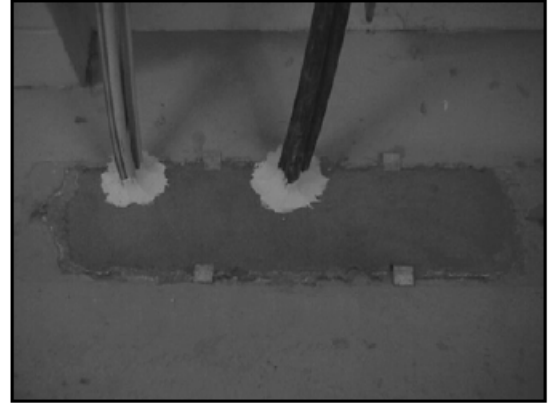
Fyreset Mortar Thickness	Maximum Size Opening	Fire Resistance Level
<i>Floor Slabs</i>		
80mm	600mm x 600mm	-/180/180
125mm	1000mm x 800mm	-/240/240
<i>Walls</i>		
90mm	600mm x 600mm	-/120/120
140mm	1120mm x 1000mm	-/240/180
150mm	600mm x 200mm	-/240/240

* For installation instructions, see following pages

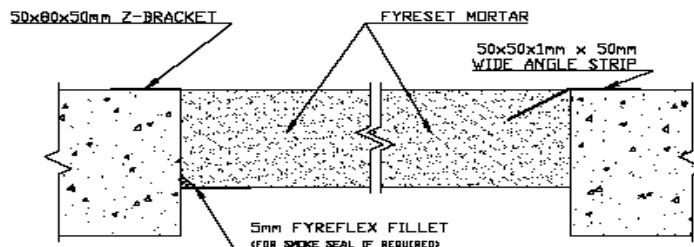
Flush mounted Floor Penetrations

Flush Mounted Installation

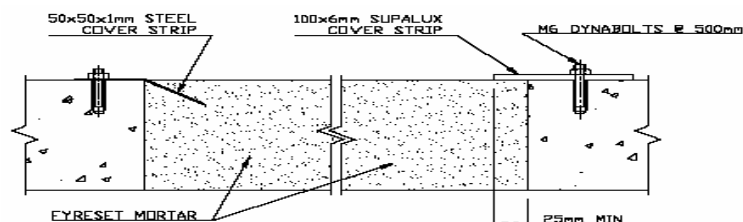
- Suitable form work must be fitted to underside of opening, cut as required around penetrations
- Metal pipes should be wrapped with 12mm foam to allow for lateral movement
- Mix mortar as directed on page 2 of this manual
- If no rebate is present, insert Z or angle brackets around edges at minimum 300mm centres.
- For large flush mounted openings, use steel or Supalux cover strips as detailed below.



Cover Strip Material	Fire Resistance Level	Description	Test Reference
NO COVER STRIP	-/180/180	Max. opening of 600mm x 600mm protected by 80mm thick Fyreset Mortar	FSP 0768
	-/240/240	Max. opening of 600mm x 200mm (or up to 0.12m ²) protected by 150mm thick Fyreset Mortar	CC 10927



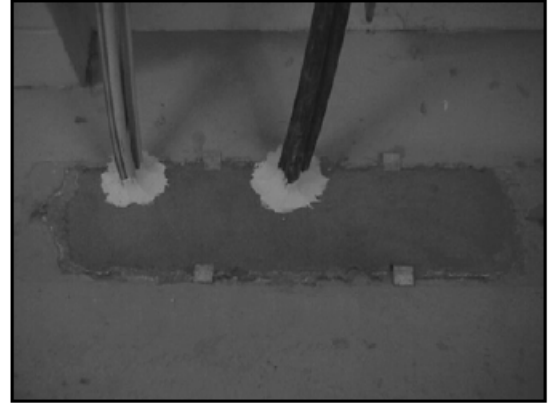
Cover Strip Material	Fire Resistance Level	Description	Test Reference
SUPALUX	-/240/120	Max. opening of 1000mm x 800mm protected by 125mm thick Fyreset Mortar. Edges protected with 100mm X 6mm Supalux fillets fixed at 500mm centres with No.6 Dynabolts	C 91404
STEEL	-/240/90	Max. opening of 1000mm x 800mm protected by 125mm thick Fyreset Mortar. Edges protected with 50mm X 1mm steel with 30° bend pressed into Fyreset Mortar	C 91404



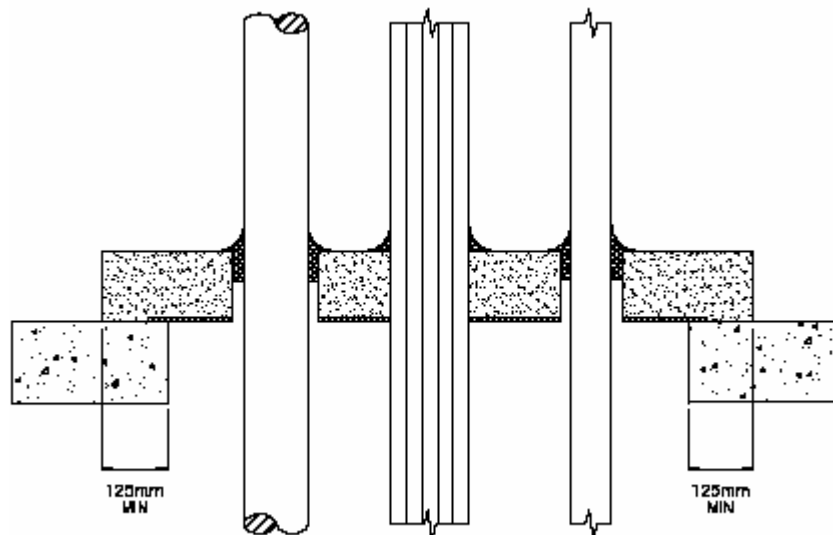
Surface mounted Floor Penetrations

Surface Mounted Installation

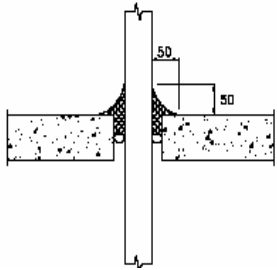
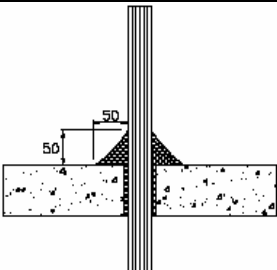
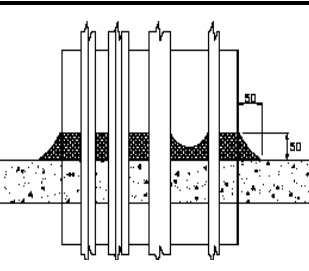
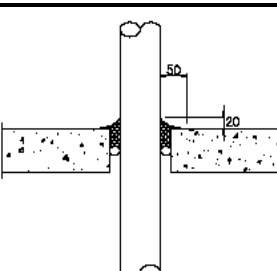
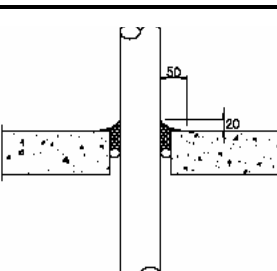
- a) Suitable form work must be fitted to topside of opening, cut as required around penetrations
- b) Metal pipes should be wrapped with 12mm foam to allow for lateral movement
- c) Fix perimeter Z-sections (if required)
- d) Mix mortar as directed on page 2 of this manual
- e) Fill gaps around penetration with Fyreflex sealant.



Fire Resistance Level	Description	Test Reference
-/120/120	125mm slab with maximum opening of 1000mm x 800mm protected by surface mounted Fyreset mortar with permanent combustible framework. Fyreset is to be 80mm minimum thickness and edges protected with Z-sections	C 91412



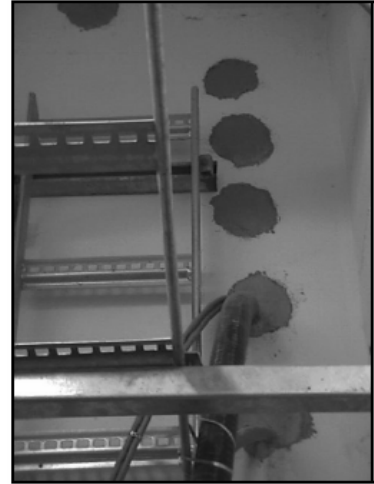
Approved Floor Penetrations

SERVICES	SYSTEM DESCRIPTION	FRL	DIAGRAM
SINGLE CABLES	Cables up to 58mm diameter. Annular gaps sealed with Fyreflex Minimum depth of 30mm	-/240/120	
CABLE BUNDLES	Bundle of up to 25 (5 x 5) telecommunication cables. 25mm cables may be used. Annular gaps sealed with Fyreflex to full depth of slab.	-/240/90	
MULTIPLE CABLE PENETRATIONS	Metal cable trays up to 380mm wide supporting assorted cables. Annular gaps sealed with Fyreflex to full depth of slab.	-/240/120	
STEEL PIPES	Steel pipes up to 200mm diameter. Annular gaps sealed with Fyreflex Minimum depth of 30mm	-/240/-	
BRASS AND COPPER PIPES	Brass and copper pipes: 20mm diameter 100mm diameter 200mm diameter Annular gaps sealed with Fyreflex to minimum depth of 30mm	-/240/- -/120/- -/180/-	

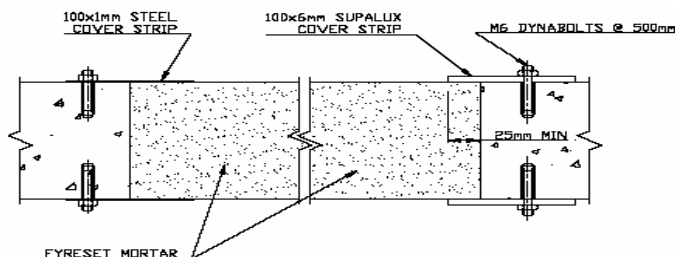
Wall Penetrations

Wall Installation

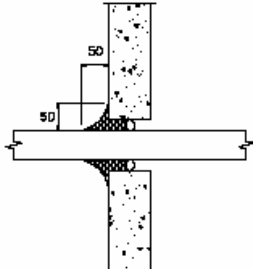
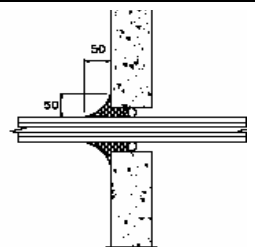
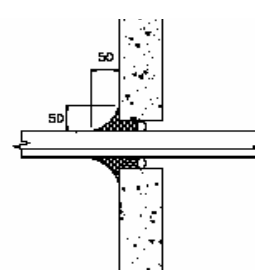
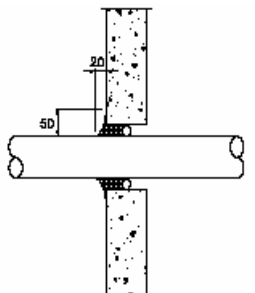
- Metal pipes should be wrapped with 12mm foam to allow for lateral movement
- Mix mortar with less water to create a stiffer consistency. Mortar should be stiff enough to enable openings of up to 200mm to be filled without formwork. Taller openings require support to one or both faces
- For large openings, use steel or Supalux cover strips as per details below.
- Fill gaps around penetration with Fyreflex sealant.



Cover Strip Material	Fire Resistance Level	Description	Test Reference
NO COVER STRIPS	-/120/120	Masonry or concrete wall with max. opening size of 600mm x 600mm protected by 90mm thick Fyreset Mortar	NI 3589
	-/120/120	Masonry or concrete wall with max. opening size of 1120mm x 1000mm protected by 140mm thick Fyreset Mortar	NI 2889
	-/240/120	Masonry or concrete wall with max. opening size of 600mm x 200mm (or up to 0.12m ²) protected by 150mm thick Fyreset Mortar	CC 10927
SUPALUX	-/240/180	Masonry or concrete wall with max. opening size of 1120mm x 1000mm protected by 140mm thick Fyreset Mortar. Vertical edges protected with 100mm x 6mm Supalux fillets fixed with Dynabolts to both sides of wall	C 91404
STEEL	-/240/180	Masonry or concrete wall with max. opening size of 1120mm x 1000mm protected by 140mm thick Fyreset Mortar. Vertical edges protected with 100mm x 1mm steel fixed with dynabolts to both sides of the wall	C 91404



Approved Wall Penetrations

SERVICES	SYSTEM DESCRIPTION	FRL	DIAGRAM
SINGLE CABLES	Cables up to 43mm diameter. Annular gaps sealed with Fyreflex Minimum depth of 30mm	-/240/120	
CABLE BUNDLES	Bundle of up to 24 (6 x 4) telecommunication cables. Annular gaps sealed with Fyreflex to full depth of slab. A 150mm steel cable tray may be used	-/240/120	
MULTIPLE CABLE PENETRATIONS	Metal cable trays up to 380mm wide supporting assorted cables. Annular gaps sealed with Fyreflex to full depth of slab.	-/240/120	
STEEL PIPES	90mm diameter steel pipes 150mm diameter steel pipes Annular gaps sealed with Fyreflex to a minimum depth of 15mm both sides or 30mm one side	-/240/- -/120/-	
BRASS AND COPPER PIPES	Brass and copper pipes up to 150mm diameter Annular gaps sealed with Fyreflex to a minimum depth of 15mm both sides or 30mm one side	-/120/-	