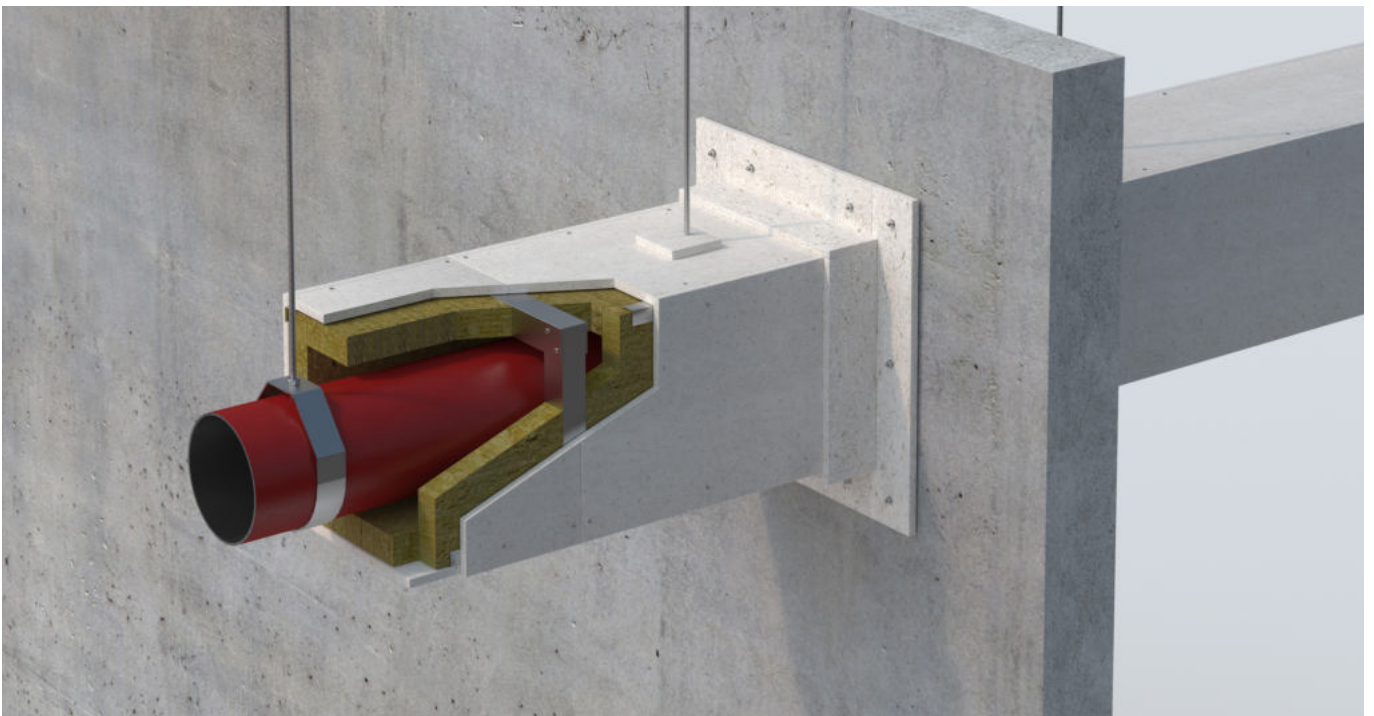


# Promat

## PROMATECT®-N Riser Pipe Protection



[www.promat-ap.com](http://www.promat-ap.com)

Solely for distribution in Singapore



### Product properties

PROMATECT®-N is a non combustible matrix engineered mineral board reinforced with selected fibres and fillers. It does not contain asbestos and formaldehyde.

PROMATECT®-N is beige in colour. The front face is smooth and is suitable for any forms of architectural/finishing treatment; the reverse face is sanded. The board can be left undecorated or easily finished with paints, wallpapers or tiles.

### Material properties

<b>Generic description</b>	PROMATECT®-N matrix engineered mineral board
<b>Surface condition</b>	Front face: smooth Back face: sanded
<b>Building regulations</b>	Class 0
<b>Alkalinity</b>	pH 9
<b>Coefficient of expansion</b>	$-7.5 \times 10^{-6}$ m/mk
<b>Thickness tolerance</b>	-0.5mm, +1 mm (standard thickness boards)
<b>Dimension tolerance</b>	±5mm (standard dimension boards)

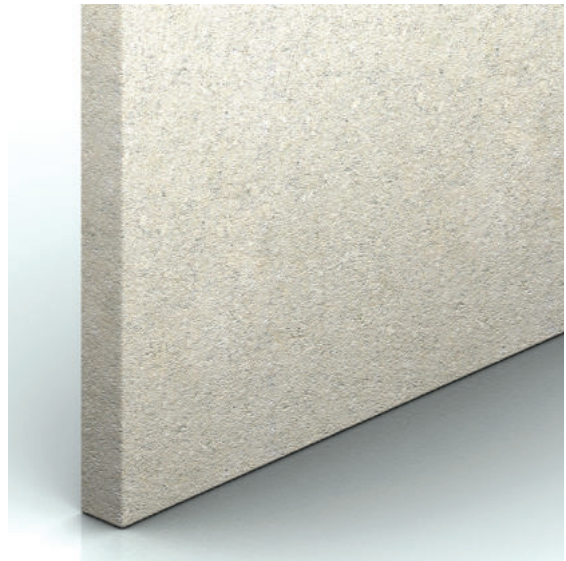
### Physical performance

Property	Test method	Test results
<b>Density</b>	BS EN 323	Nominal 1000kg/m <sup>3</sup>
<b>Modulus of elasticity, E</b>	BS EN 310	Longitudinal 4599N/mm <sup>2</sup> Transverse 3817N/mm <sup>2</sup>
<b>Flexural strength, F<sub>rupture</sub></b>	BS EN 310	Longitudinal 7.52N/mm <sup>2</sup> Transverse 5.15N/mm <sup>2</sup>
<b>Tensile strength, T<sub>rupture</sub></b>	BS 5669: Part 1	Longitudinal 5.99N/mm <sup>2</sup> Transverse 5.17N/mm <sup>2</sup>
<b>Compressive strength</b>	BS 5669: Part 1	7.76N/mm <sup>2</sup>
<b>Combustibility</b>	EN 1350-1: 2007/ A1: 2009	Classification: A1
<b>Surface burning</b>	BS 476: Part 7 AS 1530: Part 3	Class 1 Class 0,0,0,0
<b>Thermal conductivity</b>	ASTM C518	0.136W/m <sup>2</sup> K
<b>Moisture content</b>	BS EN 322	8%

### Standard board

Thickness	Dimension*	Weight of board per m <sup>2</sup>
<b>9mm</b>	2440mm x 1220mm	Approx. 9kg
<b>12mm</b>	2440mm x 1220mm	Approx. 12kg
<b>15mm</b>	2440mm x 1220mm	Approx. 15kg
<b>20mm</b>	2440mm x 1220mm	Approx. 20kg
<b>25mm</b>	2440mm x 1220mm	Approx. 25kg

\*Other dimensions are available for request.



PROMATECT®-N is resistant to effects of moisture and will not physically deteriorate in a damp or humid environment. Whilst its performance characteristics are not degraded by moisture or ages, PROMATECT®-N is not designed for application in areas subject to continual damp or high temperatures.

PROMATECT®-N product does not rot and it will not support the growth of mould or attract pests.

### Health and safety

When machining the PROMATECT®-N product, airborne dust may be released, which may be hazardous to health. Do not inhale the dust. Avoid contact with skin and eyes. Use dust extraction equipment. Respect regulatory occupational exposure limits for total inhalable and respirable dust. A health and safety data sheet is available from Promat and, as with any other material, should be read before working with the product.

PROMATECT®-N product is not classified as a dangerous substance so no special provisions are required regarding the transportation and the disposal of the product to landfill. The product can be placed in on-site rubbish skips with other general building waste which should then be disposed by a registered contractor in the appropriate and approved manner.

All properties herein are mean values given for information and guidance only. If certain properties are critical for a particular application, it is advisable to consult Promat. PROMATECT®-N is manufactured under a quality management system certified in accordance with ISO 9001: 2008. The product has passed the site audit in accordance with the environmental standards of ISO 14001: 2004 and occupational health and safety requirements of OHSAS 18001: 2007.

### Loading/uploading, storage and handling of boards

#### Loading/uploading

PROMATECT®-N boards are supplied on pallets suitable for fork lift unloading. If off-loading by crane and slings is envisaged, care should be taken to avoid damaging edges of the boards. Pallets and crates can be safely handled by using a fork lift or hoisting equipment and straps. Steel cables or chains should not be used as they will damage both the pallet and the boards. Where crates are removed from a box container, care should be taken not to subject crates and pallets to any impact shock, as this could result in cracking of the boards.

Always drive the delivery vehicle as close as possible to where the boards are to be used. When transporting the boards, it is essential to secure the pallets to prevent sliding. If the boards are subsequently moved around the site, they should be placed on a rigid base suitable for lifting by forklift. Promat boards should always be stored on a rigid base.

#### Storage

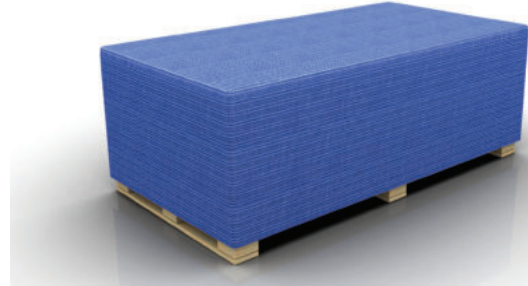
PROMATECT®-N boards are supplied with protective plastic sheet wrapped around the timber crates. This protection should not be removed until the boards are ready for use.

In general, the following steps should be taken to ensure that the boards remain in good condition during storage.

- a) The boards should be stored and stacked on covered and dry, level ground, away from the working area or mechanical plant.
- b) Pallets should be a maximum of 800mm height ( $h \leq 800\text{mm}$ ) on firm level ground. If two or more pallets are stacked, the total stack height must be less than 3200mm ( $H \leq 3200\text{mm}$ ).



- c) The stacked boards must be stored under cover completely for protection from inclement weather.



#### Handling

Following recommendation must be always taken into account when handling PROMATECT®-N boards:

- a) Wherever possible, always lift the boards from underside rather than slide the boards on each other on the stack to prevent damage or scratches on surface of the boards.



- b) Always carry the boards on edge but do not store on the edge.



### On site machines

While working at site, hand tools and low speed electric tools are generally recommended. When high speed electric tools are used, dust extraction is essential.

#### Power tools with dust extraction equipment

Sawing machines such as FESTO, Bosch, Makita etc work with a tungsten carbide tipped saw blade on a low speed electric motor and move over a fixed working table. It is a typical machine for occasional use on site producing very good results and is capable of cutting boards with maximum thickness up to 25mm.

A vacuum cleaner is recommended for use while cutting especially when using power saws. As an additional safety precaution, always wear eye, ear and dust protection when using power tools of any type. A portable version of the working table is available for the convenience of board cutting on site.

While working with power saws, the following important points should be observed:

- Ensure that the boards to be cut are continuously and well supported on either side of the cut.
- A straight edge should be clamped in position to guide the cutting operation.
- Care must be taken to ensure the tool remains against the straight edge during the cutting operation.
- The cutting rate should be such that the blade is not labouring or over-heating. Feed speed for fibre cement boards is normally slower than for natural timber.

#### Jigsaw



This is applicable for panels up to 25mm thick. The panels can be cut easily with a jigsaw to form various shapes. Blades with special hardened teeth are available for cutting the boards. As with all power tools, care should be taken to cut within the capacity of the tool and blade. Do not force the cutting speed.

#### Scoring knife

This tool is equipped with a tungsten carbide tipped point. It is suitable for use with panels up to 6mm thick. Several passes using a straight edge to guide the knife are required on the board surface to create an increasingly deep scored groove. The final break is obtained by applying pressure on the unsupported part of the board. The cut is relatively neat but the edge should be finished with glass paper or a manual or electric plane.

#### Hand saw



Hand sawing is suitable for general cutting operations and for small cuts, notchings or small penetrations. However, this method of cutting can be rather time intensive. The fastest way is to allow the saw to work at its own speed, trying to force the tool to cut faster merely blunts the teeth.

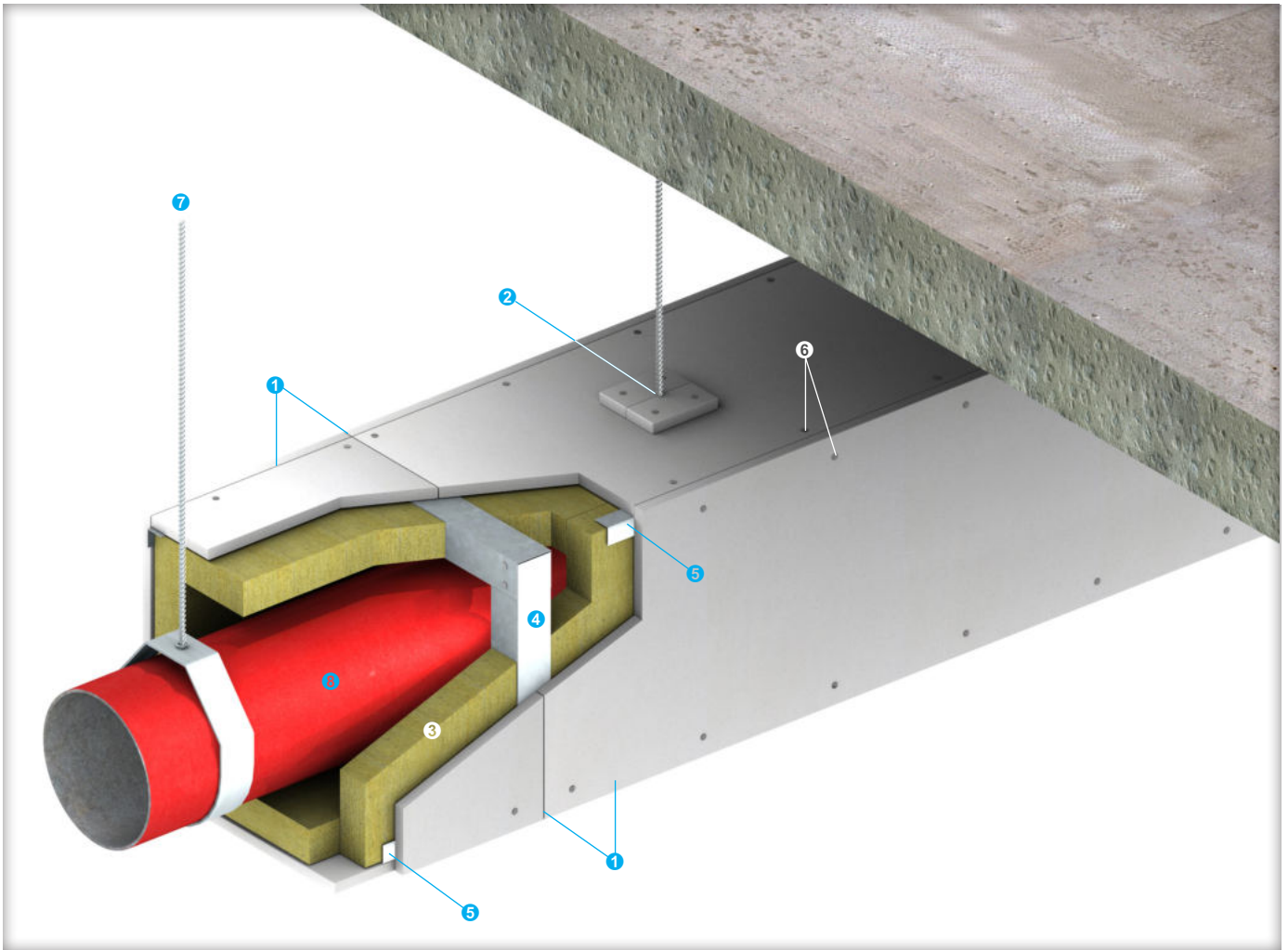
#### Drilling



Drilling can be carried out either by hand drill or any conventional power drill with or without dust extraction. For best results, the boards should be firmly supported behind the location of the holes. Generally when working on Promat boards, the use of drills with point angles of 60° to 80° rather than the more usual 120° type, are preferable and more efficient.

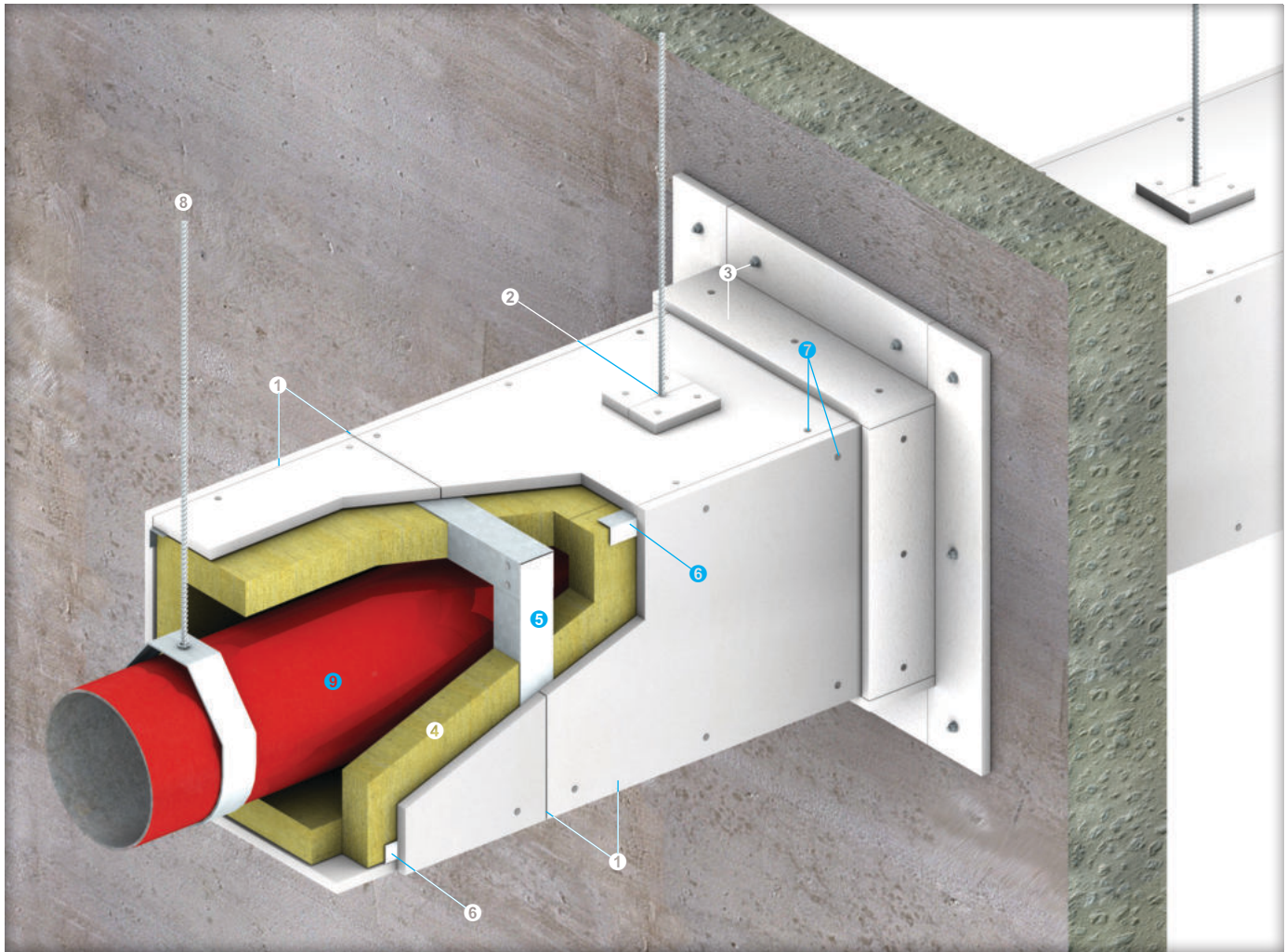
#### Rasp/surform

A rasp or surform can be used for edge finishing where necessary in order to trim away rough edging. For optimum edge finishing, dress the edges with fine glass paper.



Up to 120/120/120 fire resistance in accordance with the requirements of BS 476: Part 20: 1987 and FSB/PSB/001/00

- ① One layer of 12mm thick PROMATECT®-N board, joints fully sealed with all purpose plaster jointing compound
- ② 12mm thick PROMATECT®-N cover strips at hanger rod penetration junction  
Caulk all edges between the strip and the hanger rod with PROMASEAL®-A Acrylic Sealant
- ③ 50mm thick x 100kg/m<sup>3</sup> mineral wool infill to cavity between board and riser pipe
- ④ Minimum 50mm x 50mm x 0.6mm thick galvanised steel collar coincided with board joints at maximum 1220mm centres
- ⑤ Minimum 50mm x 50mm x 0.6mm thick galvanised steel angle fixed to collar framework at corners
- ⑥ 45mm long M4 self-tapping screws at nominal 200mm centres
- ⑦ Supporting steel hanger rods, maximum stress allowance not exceeding 10N/mm<sup>2</sup>
- ⑧ Wet/dry riser pipe or hydrant pipe up to 600mm outer diameters

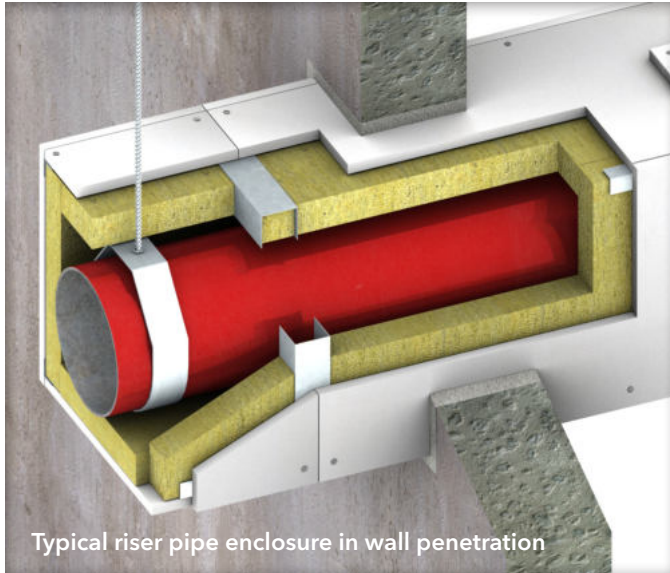


Up to 240/240/240 fire resistance in accordance with the requirements of BS 476: Part 20: 1987 and FSB/PSB/001/00

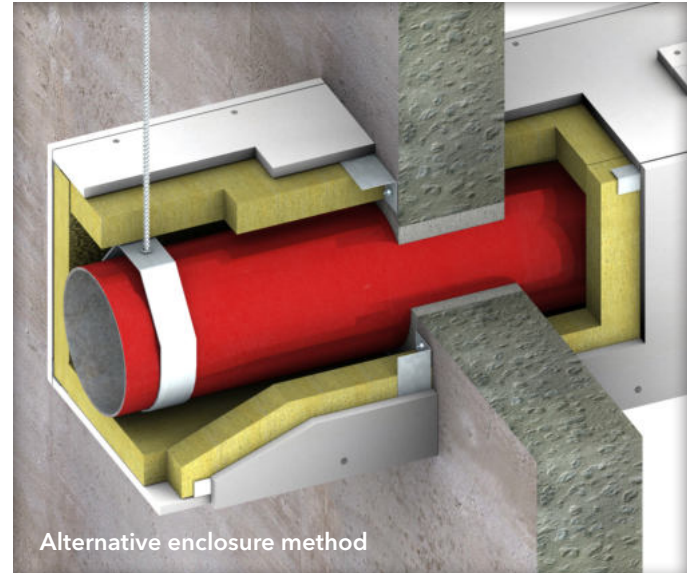
- ① One layer of 15mm thick PROMATECT®-N board, joints fully sealed with all purpose plaster jointing compound
- ② 15mm thick PROMATECT®-N cover strips at hanger rod penetration junction  
Caulk all edges between the strip and the hanger rod with PROMASEAL®-A Acrylic Sealant
- ③ Minimum 100mm wide x 15mm thick PROMATECT® 50 collars, fitted around the pipe on both sides of the wall forming an L shape collar
- ④ 50mm thick x 100kg/m<sup>3</sup> mineral wool infill to cavity between board and riser pipe
- ⑤ Minimum 50mm x 50mm x 0.6mm thick galvanised steel collar coincided with board joints at maximum 1220mm centres
- ⑥ Minimum 50mm x 50mm x 0.6mm thick galvanised steel angle fixed to collar framework at corners
- ⑦ 45mm long M4 self-tapping screws at nominal 200mm centres
- ⑧ Supporting steel hanger rods, maximum stress allowance not exceeding 6N/mm<sup>2</sup>
- ⑨ Wet/dry riser pipe or hydrant pipe up to 600mm outer diameters

### Wall penetration

Where the enclosure passes through a fire compartment wall, the penetration must be properly sealed. The gap between the enclosure and the wall opening should be fully filled with PROMASEAL®-A Acrylic Sealant. For 240 minutes fire resistance, an L shape collar is required fitted around the pipe on both sides of the wall.



Typical riser pipe enclosure in wall penetration

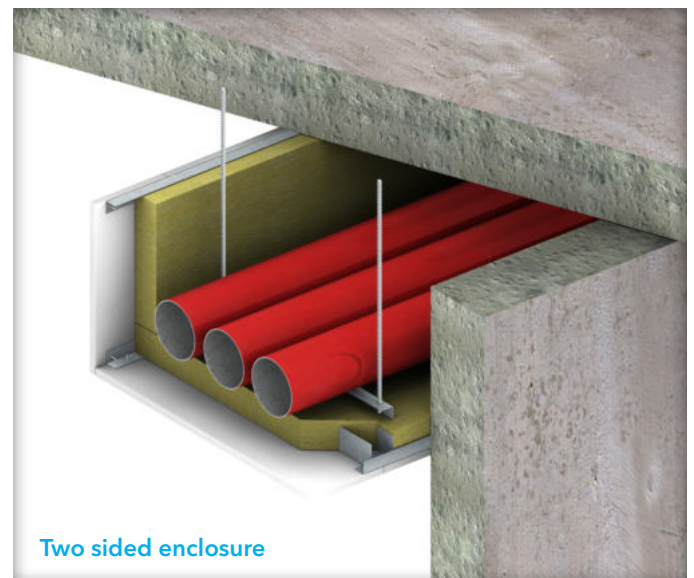


Alternative enclosure method

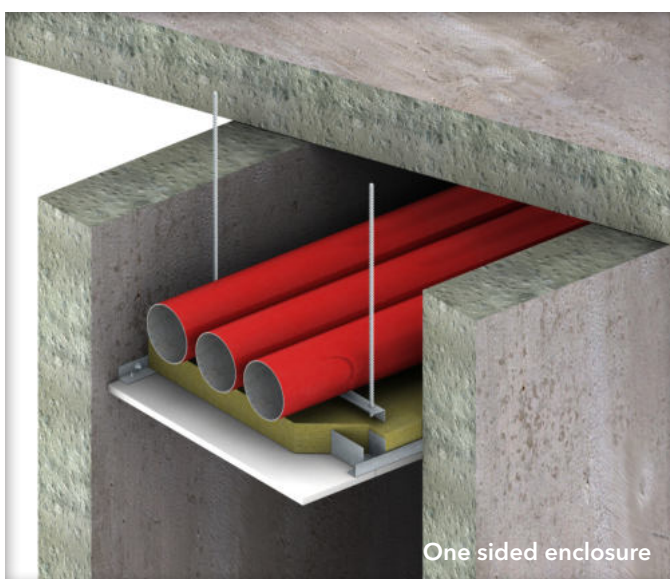
### One, two or three sided protection

One, two or three sided enclosures are constructed similarly as a four sided enclosure.

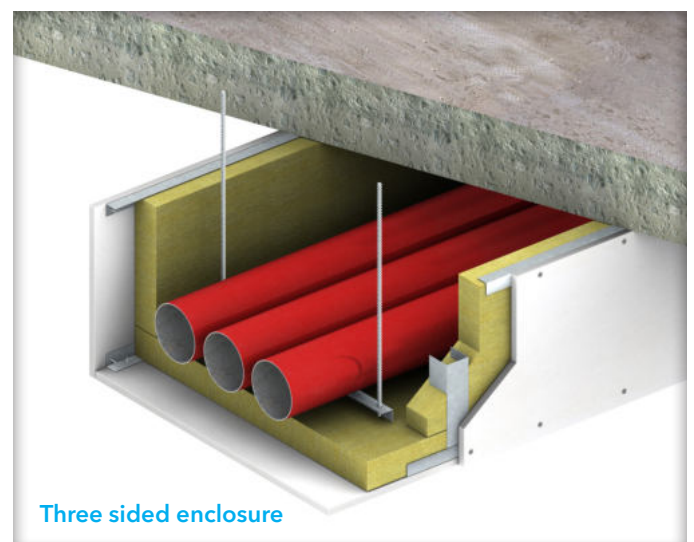
Minimum 30mm x 30mm x 0.6mm thick galvanised steel angles are fastened to the wall or floor slab with M6 all steel expanding anchors at 600mm nominal centres. The PROMATECT®-N boards forming the walls of the protection to the building services are then fastened to the angles with M4 self-tapping screws in appropriate length at 200mm nominal centres. The services are independently supported.



Two sided enclosure



One sided enclosure



Three sided enclosure



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Through its subsidiaries, the group offers an extensive range of products: small and large roofing materials, cladding and building boards, passive fire protection systems and ceramic tiles.

Etex aims to be a professional, solid partner for all kinds of building projects.

