

# Promat

by etex

VERSION 1

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STRUCTURAL PROTECTION

# PROMATECT<sup>®</sup>-XS

Providing fire protection to structural steel for up to 60 minutes



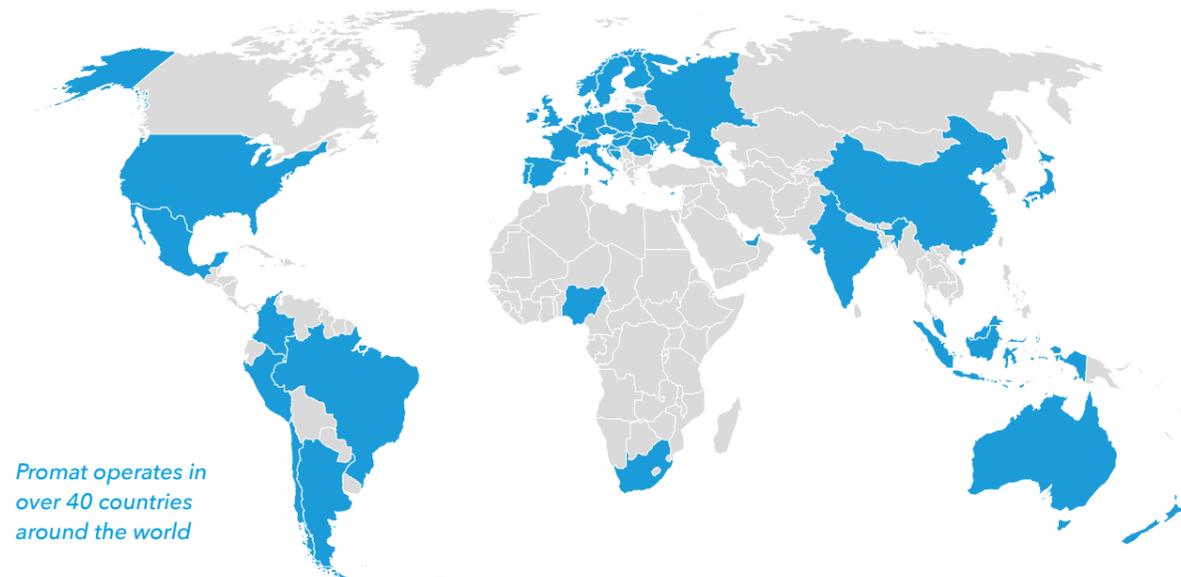
FULLY EN TESTED  
AT LIMITING TEMPERATURES  
FROM 300°C TO 700°C

UP TO  
**6 MONTHS**  
WEATHER EXPOSURE

High performing  
fire protection  
board with excellent  
weather resistance  
and fast installation

# Who are Promat?

For more than 60 years, Promat has been designing, testing and manufacturing specialist fire protection systems. This means that our customers benefit from a complete portfolio from which to build a certified fire safety solution that is right for their project.



## Why choose Promat?

### Our fire testing culture

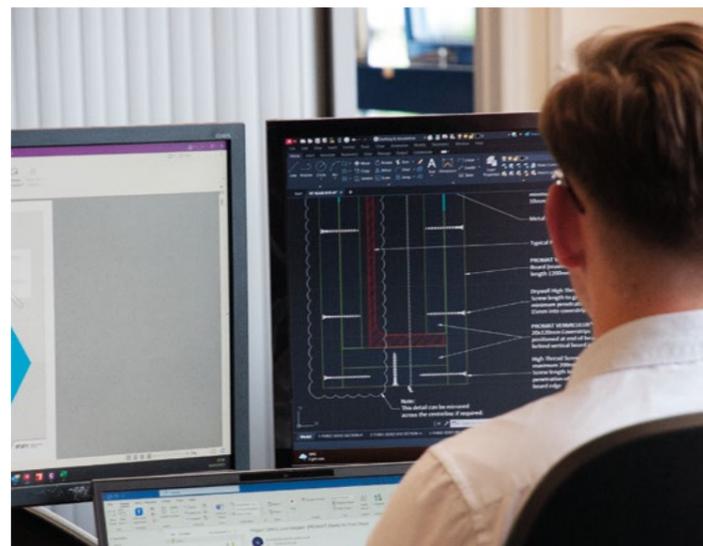
Our team of fire test engineers work with certified laboratories to undertake an impressive program of global and local fire tests to ensure our systems perform at their best.

### Our research and development

Our researchers constantly look for solutions to develop new, lightweight fire protection solutions that will help reduce our impact on the planet and contribute to the circular economy.

### Our expertise

Our dedicated Technical Support team along with our extensive testing, certification and design support tools enable us to provide a superior level of support at every stage of your project.



# Who are Etex?



Etex is the UK's leading provider of lightweight construction solutions. Our combined expertise in drywall, passive fire protection and firestopping has created a range of unique solutions from the building envelope to internal linings, partitions and penetrations.

## Part of the Etex group

We are proud to be part of Etex, playing a key role in its mission to build living spaces that are ever safer, smarter, and more sustainable. This means that our customers benefit from the certainty and choice from working with a key global manufacturer of interior and exterior building solutions.



Our fire stopping range is now available via our sister company FSi under the joint branding of FSi Promat. FSi have over 23 years of specialist knowledge in fire stopping and offer a large range of both fire stopping and cavity barrier products and systems. Visit [FSiltd.com](https://www.fsiltd.com) to find out more.

**"WE'RE COMMITTED TO MAKING SURE OUR CUSTOMER'S PROJECTS BENEFIT FROM HIGH QUALITY FIRE PROTECTION PRODUCTS AND SYSTEMS THAT ARE TESTED, CERTIFIED AND TRUSTED. COMBINED WITH OUR COMMITTED TECHNICAL SUPPORT, WE ENABLE THE BUILDING OF EVER SAFER LIVING AND WORKING SPACES, AS WELL AS MORE SUSTAINABLE INDUSTRIES AND ENERGY SOURCES."**

**WE'RE EXTREMELY PROUD OF THE HARD-EARNED TRUST OUR CUSTOMERS HAVE IN US AND OUR SOLUTIONS."**

JOSH SLACK, - PROMAT COMMERCIAL DIRECTOR.

# Product Overview

PROMATECT®-XS is for use in structural steelwork protection systems with fire protection of up to 60 minutes and can be installed before the building is weathertight.

PROMATECT®-XS provides a clean, impact resistant finish and can be used where the fire protection system is in full view.

It offers the specifier a clean, boxed appearance. It is often a thinner solution in comparison with other fire-resistant constructions as it does not require sub-framing components, maximising useable space

It can also accept a decorative finish and therefore be used where aesthetics are important.

**UP TO 6 MONTHS WEATHER EXPOSURE\***

## FIRE RESISTANT



Classified A1 non-combustible to EN 13501-1.

## MOULD RESISTANT



Resistant to the effects of moisture.

## FLEXIBLE



No framing components required, maximising useable space.

## DURABLE



PROMATECT®-XS will not degrade by age and has good impact strength.

## EASY TO DECORATE



With a smooth, decorative finish.

\*PROMATECT®-XS is resistant to the effects of moisture and will not physically deteriorate when used in damp and humid conditions. It can be installed up to 6 months before the building is weathertight. The board should not be subject to water run-off from slabs or other parts of the building. The board should not be in contact with standing water. Where the board is located on the perimeter of the building and sits proud of the building line, exposed surfaces should be given additional weather protection using a breather membrane.



### PROMATECT®-XS is typically used:

- In any project where there is a requirement for up to 60 minutes fire protection
- In the early construction phase when the building is not weathertight
- Where space is limited, and speed of installation is important.

# Design Benefits

## Quick and easy installation

PROMATECT®-XS has been designed with ease of installation in mind.

- Easy installation with staple fixings and no glue or filler required
- Frameless installation for time, space and cost optimisation
- Thin board thickness needed for 60 minutes fire protection
- Can be installed during the early construction phase when the building is not weathertight\*
- High quality surface finishing



\*To protect from driving rain it is recommended that a bead of FSI Promat Pyrolastic® Silicone Sealant is applied at the cut edges after the boards are butted together and smoothed over the joint and exposed edge rather than applying between the edges and squeezing together.

# Design Benefits

## Fully EN tested and Classified

PROMATECT®-XS is used to provide 60 minutes fire protection to three or four sided encasements including:

- Universal columns and beams (I or H sections) and joists
- Beams supporting composite floors with profiled metal decking
- Structural hollow sections
- Partially exposed members
- Perimeter beams

A fully EN fire tested solution which has been independently classified by Efectis UK/Ireland.

- Tested to EN 13381-4:2013
- Classified to EN 13501-2:2023
- Also tested for Integrity and Insulation to EN 1364-1
- Bespoke tests for interface of beams and columns to Siniat partitions.

**THIRD PARTY CERTIFICATION**



Tested and Classified to EN Standards.

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**'REAL LIFE' TESTING**



Bespoke testing completed for interfaces between encasements and partitions.

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**MAINTAINS COMPARTMENTATION**

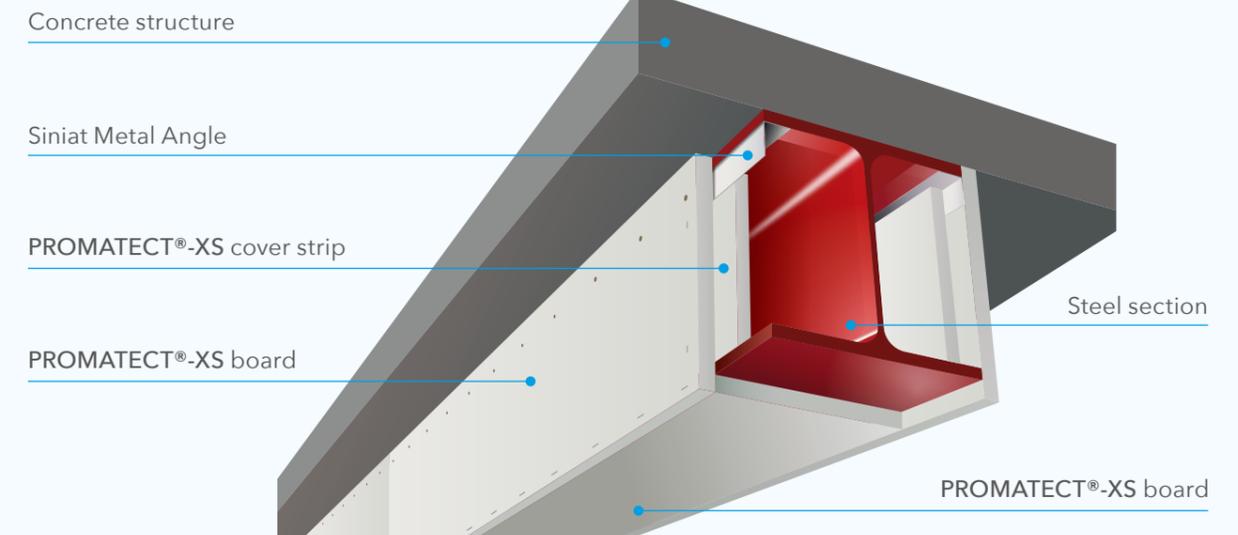


Additionally tested for fire integrity and insulation.

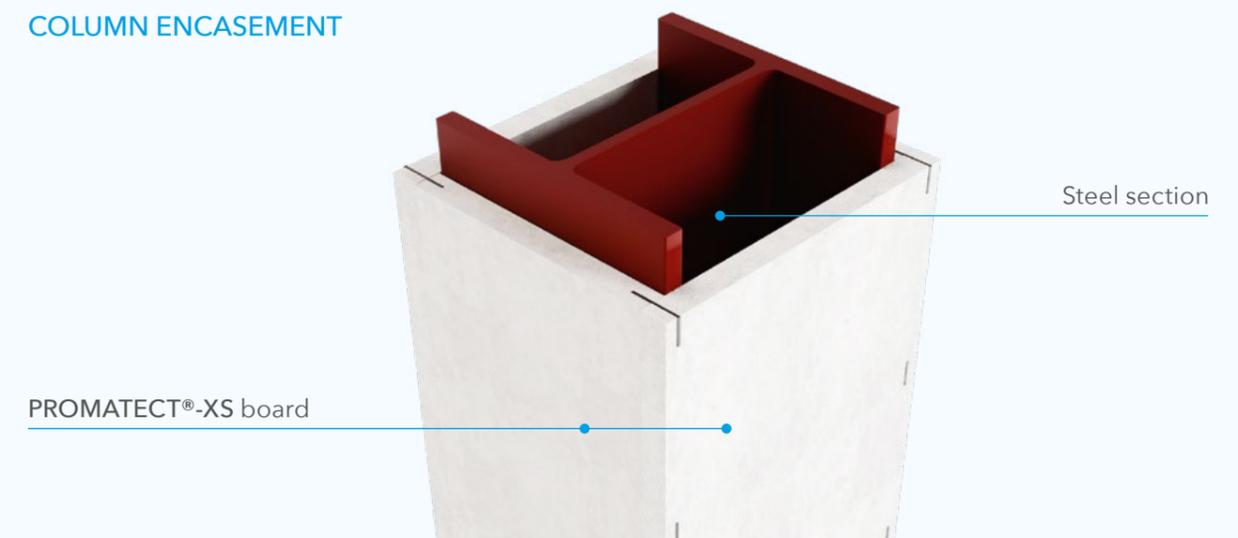


## A thin solution for structural steel protection

### BEAM ENCASEMENT



### COLUMN ENCASEMENT



PROMATECT®-XS has additional EN testing to EN 1364-1 for fire insulation and integrity and therefore fire compartmentation can be maintained where a structural element falls inline with the building's fire compartment walls and floors.

Where fire compartmentation is required as well as fire protection to the steel, fire insulation must be provided across the beam or column to the criteria of BS EN1363-1 (maintaining fire insulation to average temperature rise of 140°C, maximum temperature 180°C).

15mm thick PROMATECT®-XS on each side of the beam or column will maintain compartmentation for up to 60 minutes.

**Insulation within encasements:**

Low density (10-30kg/m<sup>3</sup>) glass mineral wool only, if required for acoustic or thermal performance.

**Fire/smoke-tight seal:**

All boards abutting surrounding structure to be sealed using FSi PROMAT Pyrocoustic® Fire Resistant Sealant - Designed to seal any slight gaps at interfaces between the boards and the substrate, which have low movement requirements (±7.5%). Contains no solvents or halogen compounds.

**Maximum board thickness:**

PROMATECT®-XS is manufactured in 15mm and 20mm thicknesses and can only be applied in single layer arrangements.

# Specifying PROMATECT®-XS

PROMATECT®-XS provides up to 60 minutes fire protection to structural steel. 15mm and 20mm thicknesses for ease and flexibility in specification.

## SPECIFICATION IS BASED ON 4 FACTORS

- 1 THE SECTION FACTOR OF THE STEEL (A/V)\*
- 2 WHETHER THE STEEL SECTION IS A BEAM OR A COLUMN
- 3 THE LIMITING TEMPERATURE FOR THE STEEL
- 4 THE FIRE PROTECTION PERIOD REQUIRED

As advised by the structural engineer or structural steel manufacturer.

**PROMATECT®-XS IS FULLY TESTED AT LIMITING TEMPERATURES FROM 300°C TO 700°C.**  
PLEASE SEE PROMAT WEBSITE FOR MORE DETAILS.

**30 minutes fire protection**

PROMATECT®-XS A/V ratio for COLUMNS									
Limiting steel temperatures									
	300°C	350°C	400°C	450°C	500°C	550°C	600°C	650°C	700°C
15mm PROMATECT®-XS	200	330	355	355	355	355	355	355	355
20mm PROMATECT®-XS	210	340	355	355	355	355	355	355	355

**PROMATECT®-XS A/V ratio for BEAMS**

Limiting steel temperatures									
	300°C	350°C	400°C	450°C	500°C	550°C	600°C	650°C	700°C
15mm PROMATECT®-XS	260	350	350	350	350	350	350	350	350

**60 minutes fire protection**

PROMATECT®-XS A/V ratio for COLUMNS									
Limiting steel temperatures									
	300°C	350°C	400°C	450°C	500°C	550°C	600°C	650°C	700°C
15mm PROMATECT®-XS	50	70	90	110	140	170	210	250	310
20mm PROMATECT®-XS	90	120	160	220	300	355	355	355	355

**PROMATECT®-XS A/V ratio for BEAMS**

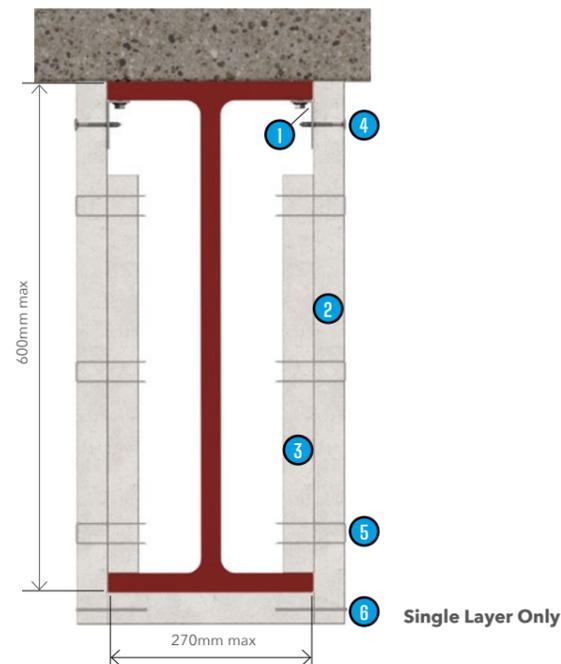
Limiting steel temperatures									
	300°C	350°C	400°C	450°C	500°C	550°C	600°C	650°C	700°C
15mm PROMATECT®-XS	50	70	90	120	160	200	260	350	350

### A/V RATIO FOR COLUMN AND BEAM ENCASEMENTS

\*The section factor of the steel is based on the size of the steel and the number of sides exposed to the fire. The A/V ratios for steel sizes can be manually calculated or can be found in the Promat Passive Fire Protection Handbook (or the ASFP Yellow Book).

# Design Guide

## PROMATECT®-XS BEAM ENCASEMENTS 3-SIDED BEAM ENCASEMENT: TOP ANGLE FIX



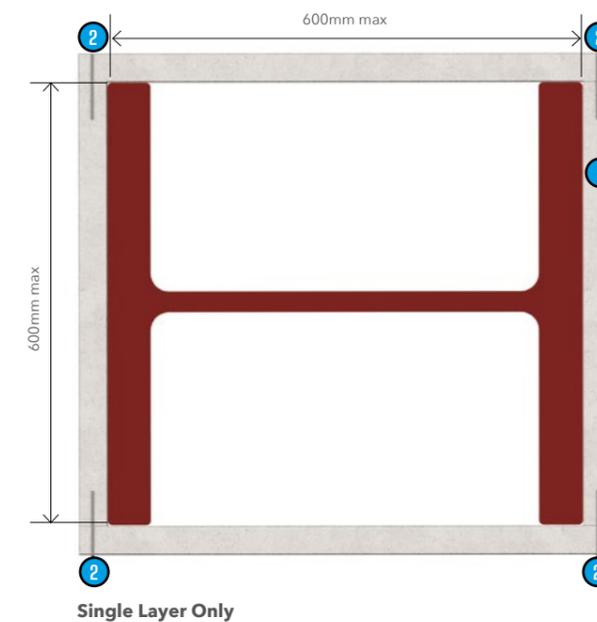
DETAIL 2.33

### Instructions

Encasements are installed using metal angles fixed to the underside of the top steel flange.

1. Siniat Metal Angle 50 x 25 x 0.7mm. Metal Angle Fixing: 3.7mm x 16mm Shot-fire nails or Siniat Wafer Head Self Drilling Screws at maximum 300mm centres.
2. PROMAT PROMATECT®-XS board, thickness determined by section factor ( $A/V$ ), fire resistance period and limiting steel temperature. Maximum board length 1200mm. Board joints are coincident around the encasement.
3. PROMAT PROMATECT®-XS coverstrip, fitted behind all vertical board joints, minimum 120mm wide.
4. Fixings to metal angles: Siniat 32mm Self-Tapping Screws at maximum 300mm centres.
5. Fixings to coverstrips: Chisel Point Staples minimum 35 x 10.5 x 1.45 x 1.30mm at maximum 100mm centres (50mm staples for 20mm board thickness). The end staples are located nominally 50mm from the corner of the board.
6. Fixings to Board Edge: Chisel Point Staples 35 x 10.5 x 1.45 x 1.30mm at maximum 100mm centres. The end staples are located nominally 50mm from the corner of the board.

## PROMATECT®-XS COLUMN ENCASEMENTS 4-SIDED COLUMN ENCASEMENT: FRAMELESS FIX



DETAIL 2.34

### Instructions

Encasements are installed by edge fixing the boards around the column (Frameless).

1. PROMAT PROMATECT®-XS board, thickness determined by section factor ( $A/V$ ), fire resistance period and limiting steel temperature. Board joints are staggered by 500mm minimum on adjacent faces.
2. Fixings to Board Edge: Chisel Point Staples minimum 35 x 10.5 x 1.45 x 1.30mm at maximum 100mm centres (50mm staples for 20mm board thickness). The end staples are located nominally 50mm from the corner of the board.

# Step by Step Guide

## Fire protection for column encasements (showing 4-sided encasement)



### 1 MEASURE FOR FLANGE PANEL

Measure the flange of the structural steel column plus 3-4mm.



### 2 MARK UP FLANGE PANEL

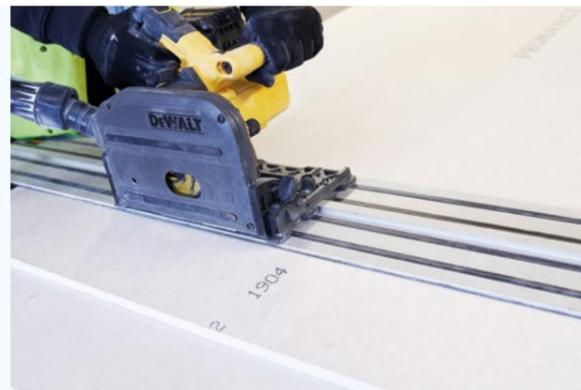
Mark up PROMATECT®-XS board to fit flange plus 3-4mm.



### 3 CUT FLANGE PANEL

Cut boards using a power circular saw in conjunction with tungsten carbide tipped blades, or a jigsaw. All cutting should be carried out in well ventilated spaces, using dust extractors. Operators should wear protective face masks.

**Note:** Promat recommends the use of a power plunge saw with a guiding rail to ensure straight clean edges.



### 4 COLUMN TO BEAM JUNCTION

Mark up, cut and fit boards around junctions by butt jointing the square edges of PROMATECT®-XS.



### 5 MEASURE FOR WEB PANEL

Measure the web of the structural steel column plus the thickness of the two PROMATECT®-XS flange panels.

**Note:** Stagger joints on adjacent faces by at least 500mm.



### 6 MARK UP WEB PANEL

Mark up and cut PROMATECT®-XS board to the dimensions in step 5.

(measure twice, cut once!)



### 7 FIXING WEB PANEL TO FLANGE PANEL

Clamp board around steel to ensure tight fit. Fix web panels to flange panels using staples.

#### Staple details

Material:	Galvanised steel
Length:	35mm (15mm Board) 50mm (20mm Board)
Width:	1.45mm
Crown:	10.5mm
Thickness:	1.3mm
Fixing centres (max):	100mm

**Note:** Recommended SENCO staple guns and staples for best compatibility with PROMATECT®-XS.

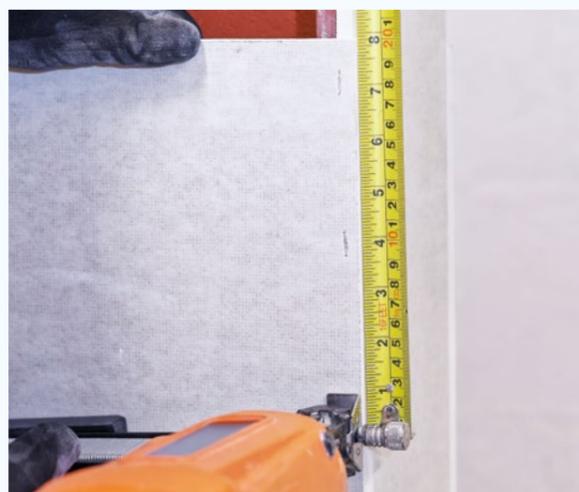


## Fire protection for column encasements (showing 4-sided encasement) (continued)

Fix board at a minimum of 25mm and a maximum 50mm from cut edge.

Staple fix the remainder of boards ensuring you aim for the centre of the board edge  
Tip: Practice on offcuts of boards to adjust the staple gun settings such as pressure and staple sinking depth.

Full length boards can be used for column encasements.



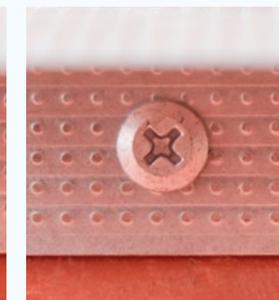
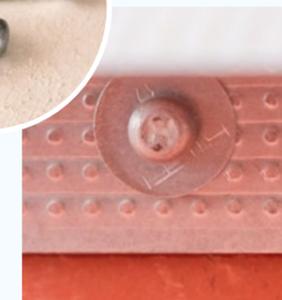
## Step by Step Guide



## Fire protection for beam encasements (showing 3-sided encasement)

### 1 FIXING STEEL ANGLE

Fix 50mm x 25mm x 0.7mm Siniat Metal Angle 90° to the underside of the top flange of the structural steel beam, using 3.7mm x 16mm shot-fire nails or Siniat Wafer Head Self Drilling screws at 300mm centres.



### 2 MEASURE FOR WEB PANEL

Measure depth between the soffit and the bottom edge of the flange and add the thickness of the PROMATECT®-XS flange panel.



## Fire protection for beam encasements (showing 3-sided encasement) (continued)

### 3 MEASURE WEB PANEL

Measure, mark up and cut PROMATECT®-XS boards to the dimensions in step 2, plus an additional 3-4mm.



### 4 FIXING WEB PANEL

Fix web panels to steel angle using Siniat Self Tapping screws spaced at 300mm centres. Screws should be approximately half way down the angle.

First fixing 50mm from board edge, second fixing, 300mm from board edge and then at 300mm centres.

Repeat process on other side of steel beam, fixing into angle as detailed above.



### 5 PLACING COVER STRIP

Install 120mm wide cover strips behind the web panel joints. These should extend minimum 15mm up behind the angle and are fixed with staples at maximum 100mm centres.



### 6 FLANGE PANEL

Measure, mark up and cut flange panel to fit between web panels.



## Fire protection for beam encasements (showing 3-sided encasement) (continued)

### 7 FIXING FLANGE PANEL

Staple flange panels into position through the face of web panels at maximum 100mm centres.

Fixings should be a minimum 25mm and maximum 50mm from each end of flange panel. There is no need to stagger joints between faces.

Maximum board length is 1200mm

#### Staple details

Material:	Galvanised steel
Length:	35mm (15mm Board) 50mm (20mm Board)
Width:	1.45mm
Crown:	10.5mm
Thickness:	1.3mm
Fixing centres (max):	100mm

**Note:** Recommended SENCO staple guns and staples for best compatibility with Promatect®-XS.



### 8 COMPLETED BEAM WITH COVER STRIP



## Finishing

### Plastering and painting

#### Plastering

If a skim coat is required, apply a sealing coat of diluted universal primer/PVA (e.g. 1 part PVA and 5 parts water). Sealing coat should be allowed to dry thoroughly (approximately 24 hours). Apply bonding coat (3 parts PVA and 1 part water). Alternative bonding coats are available to control suction and improve adhesion. One example is Parex Micro Gobetis 3000.

Apply plaster skim (3mm thick) while the bonding coat is wet and tacky. It is recommended that a small test area is plastered initially to ensure that the boards have been adequately sealed. Siniat Joint tape can be applied to all joints and internal corners. **Self Adhesive Scrim (Patch Tape) is not recommended.**

The plaster manufacturers' recommendations should be followed at all times.

#### Painting

Promat boards have an attractive, smooth finish but if required they can be painted with emulsion or water based paints. With water based paints, a diluted first coat should be used.

All coatings should be supplied by a reputable manufacturer and their recommendations regarding surface preparation, sealing and finish coat should be followed at all times.

**Note:** It is recommended that for all board installations which may be subject to long-term moisture exposure, all cut and prepared surfaces of the boards are sealed using a bead of FSI PROMAT Pyrolastic® silicone sealant prior to installation. The bead should be applied at the cut edges after the boards are butted together and smoothed over the joint and exposed edge rather than applying between the edges and squeezing together.

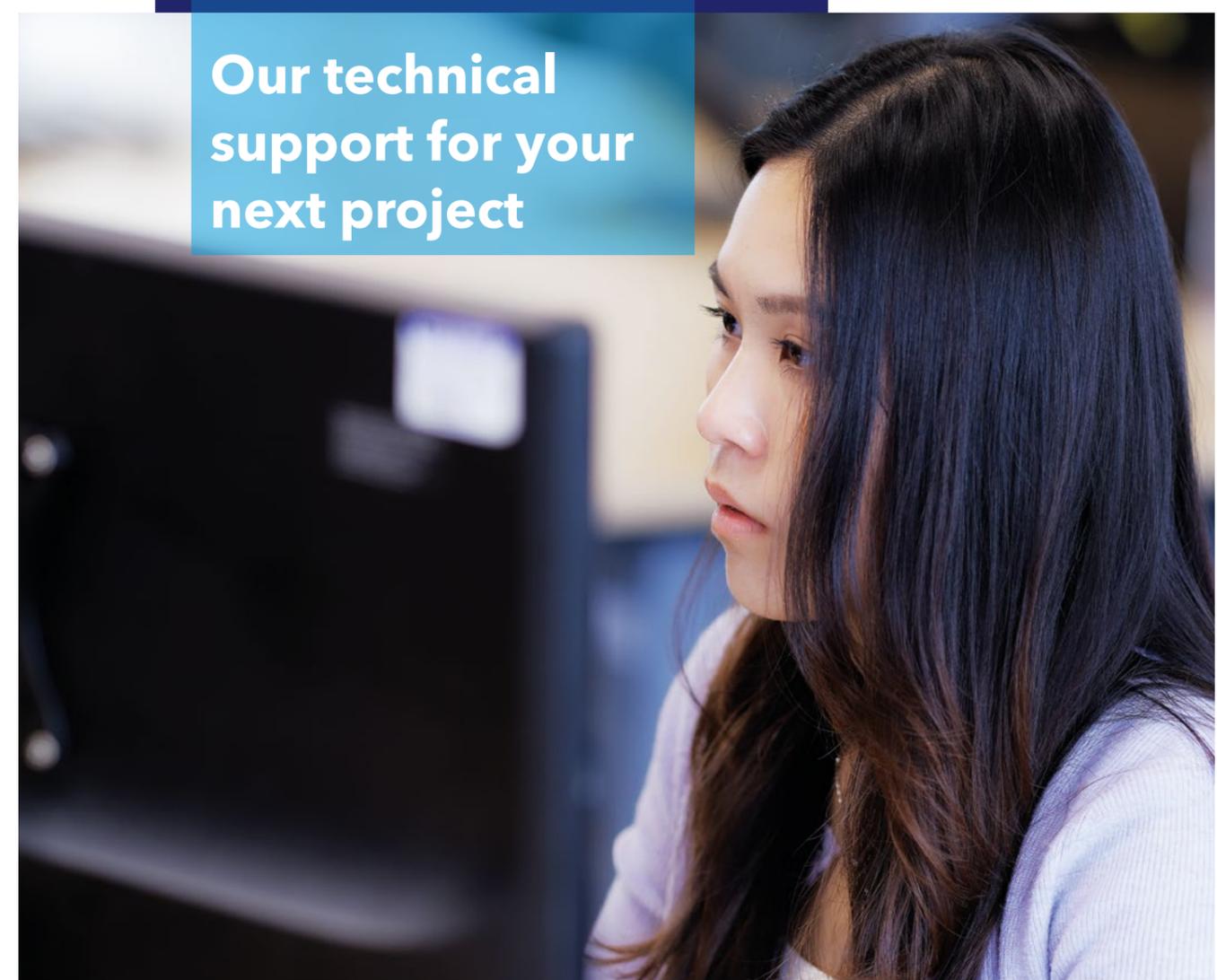


# Technical Characteristics

PROMATECT® XS Properties	
<b>Board Format Data</b>	
<b>Product Code</b>	
15mm	299044
20mm	299045
<b>Length x width (mm)</b>	2500 x 1200
<b>Edge</b>	Square
<b>Approximate weight (kg/m³)</b>	
15mm	13.7
20mm	18.3
<b>General Technical Data</b>	
<b>Designation</b>	Fire protection Board
<b>Reaction to Fire to EN 13501-1</b>	A1 non-combustible
<b>Apparent Density (kg/m³)</b>	915 (+/- 8%)
<b>Nominal Density at 23°C, 50% RH (kg/m³)</b>	950
<b>Thermal Conductivity (W/mK)</b>	0.30
<b>Dimensional Stability to BS EN 318</b>	Dimensionally stable
<b>Thickness Tolerance (mm)</b>	+0.5
<b>Length x Width tolerance (mm)</b>	-5,+0mm
<b>Compressive Strength (N/mm²)</b>	6

Reference ETA 18/0645 and manufacturing data. All physical property values are averages based on standard production. As our products are subject to continuous improvement, for current details of the product properties and system applications, please visit our PROMATECT®-XS product page on our website.

For more product properties, visit [promat.co.uk](http://promat.co.uk)



**Our technical support for your next project**

**We understand that designing and building a passive fire protection solution is often not an easy task.**

We can help you to interpret your local regulations and assess the risks in your building project that demand a reliable fire safety solution.

We can provide you with a full technical report and all the supporting documents you need to finalise your design and start the building process.

We offer you technical support and practical advice to deliver a perfect fire safety project.

**Do not hesitate to contact us.**

@ [technical@promat.co.uk](mailto:technical@promat.co.uk)

📞 0800 145 6033

# Promat

by etex

## Orderline

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E: sales.construction@promat.co.uk

## Technical Services

For technical support and advice.

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