

**Promat**

# HOW TO:

**Line a masonry or timber  
frame construction with  
PROMAFOUR®**



**PROMAFOUR®  
fire surround  
lining systems**

# PROMAFOUR®

## The fire surround lining system

If you are installing a new stove, stove surround or updating an existing one you must ensure that the wall lining in the fireplace is safe and doesn't pose a fire risk.

You must ensure that the board has the legal certification that it can both:

- Withstand the maximum and continuous temperatures of up to 1000°C; and
- Is classified A1 non-combustible and will not catch fire or contribute to a fire



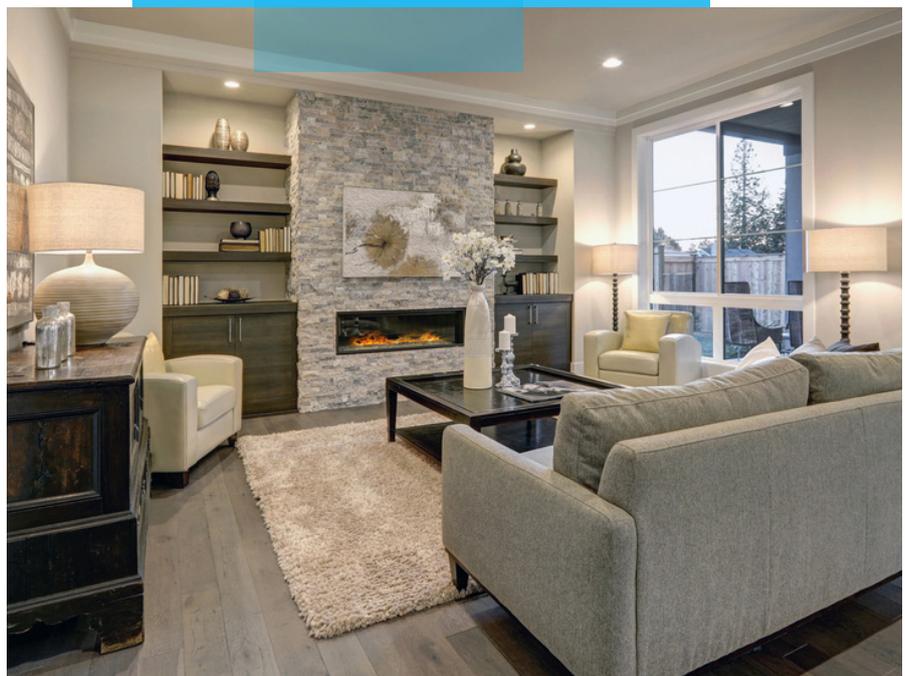
Promat PROMAFOUR® meets this criteria. It has been fully tested to international fire testing standard, BS EN 13501-1 and carries a CE Mark which is the manufacturers declaration that PROMAFOUR® meets EU safety requirements.

Whilst there are other boards on the market which are classified A1 non-combustible, they are not designed to withstand the intense heat of a fireplace or the continuous ongoing strain that is unique in this environment.

Gypsum plasterboards - including the fire-rated pink boards - are materials of limited combustibility and should not be used for fireplaces.

In contrast, PROMAFOUR® has been specifically designed to be used for the installation of a false chimney breast for an inset type fireplace and for walls surrounding free standing stoves.

It will provide a clean, pre-decorative finish for your fireplace, and as it requires no plaster it will not crack under pressure from the most intense heat.



# Why PROMAFOUR®

## Benefits for installer and homeowner

### Safe and reliable

PROMAFOUR® boards are classified A1 non-combustible in accordance with BS EN 13501-1 and resistant to very high continuous temperatures up to 1000°C during prolonged exposure. The boards are composed of calcium silicate and don't contain any bonding agent which could emit an irritating odour.

### Aesthetics and comfort

PROMAFOUR® has good heat permeability and very good thermal storage capacity. This ensures less heat loss and uniform heat emission into your home even after the fire has gone out.

PROMAFOUR® boards have a naturally smooth surface which is ideal for painting without additional plastering, leaving your stove to be the feature in the fireplace.

### Quick and easy to install

PROMAFOUR® boards can easily be cut with traditional woodworking tools and installed using masonry screws, staples, nails and PROMAFOUR® Glue, a refractory silicate-based glue which resists temperatures up to 1000°C.

### Finishing

The high quality smooth surface finish of PROMAFOUR® is ideal for painting without the need for plastering.

PROMAFOUR® can also be tiled with a minimum 18mm PROMAFOUR® supporting a maximum weight of 30kg per m<sup>2</sup>.

### Peace of mind

As PROMAFOUR® boards minimally expand and contract during and after heating, the risk of cracks, splitting or the board deforming is reduced to an absolute minimum – giving reassurance that your fireplace will require no future maintenance.

In order to build a secure and aesthetic PROMAFOUR® encasement, we advise you to follow the instructions described and utilise the PROMAFOUR® product range, which has been developed specifically for use with fires and stoves.



# Getting started

## Equipment required



### 1. PROMAFOUR® Boards

PROMAFOUR® boards are mechanically strong and easy to work with.

#### Board dimensions are:

2500mm x 1250mm and  
1250mm x 1250mm.

Available in thicknesses of  
12, 15 and 18mm.

### 2. PROMAFOUR® Glue 1000

A refractory silicate based glue which resists to temperatures up to 1000°C. Available in 310ml cartridges.

### 3. PROMAFOUR® Primer

A non-combustible and vapour permeable primer, which has been designed for use at elevated temperatures. Available in 3 Litre and 1 Litre tubs.

### 4. PROMAFOUR®-HT Joint Filler

For finishing. Available in 1.5kg tub

### 5. PROMASEAL® Silicone Sealant

A silicone based fire protection sealant. Available in white or grey colour.

### Other items you may need

- Dust and plastic sheeting/matting
- Appropriate PPE - Glasses, gloves, dust masks
- Countersunk wood screws and metal plugs
- Spatula
- Hand Saw
- Sponge
- Right angle/set square
- Nail gun
- Spirit level
- Knee pads/air masks with filters
- A circular saw or jigsaw with dust extraction device or with separate dust extraction, (the one seen in this guide is a Festool Plunge Saw with dust extractor) other plunge saws are available
- Cutting table
- Hand saw (If required for shaving boards to fit)
- Buckets ( for mixing compounds)
- Cleaning spatula to wipe the excess glue off before it sets
- If painting - paint and roller
- Countersunk concrete/masonry screws.

### Before you begin

Before you begin to install your PROMAFOUR® lining it is important to carefully read the following safety measures and instructions:

- Always observe the safety instructions of the stove manufacturer
- Always ensure safe working conditions and a safe working environment
- Take the necessary precautionary measures to prevent possible injuries
- Always use the correct equipment as described in this installation manual and stove manufacturers guidelines.

This is not a guide on how to install a stove - please ensure you meet building regulations and follow all of the procedures for the stove installation in addition to this process.

# Step by step guide

There are 4 stages for the lining of a masonry fireplace:



## STAGE 1: PREPARING THE EXISTING FIREPLACE

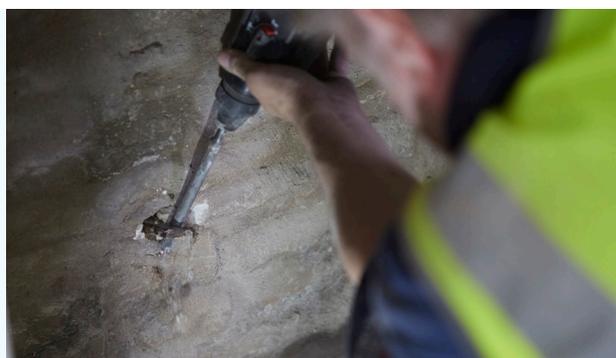
- 1 Cover the surrounding area to the installation with dust sheets to ensure any dust is contained.

- 2 Review the opening of the fireplace and look to see how uneven the surfaces are. For new properties this should not be an issue but older properties can have uneven surfaces. You can check how straight by using a right angle set square. As shown opposite.



Using a right angle set square to check for uneven surfaces

- 3 Large protrusions on the surface should be removed to make the surface as level/even as possible.



Some older properties might have hooks inside the fireplace – these should be removed.

## STAGE 2: INSTALLING PROMAFOUR® IN A MASONRY FIREPLACE

- 1 Measure the three surfaces of the fireplace. With older properties take several measurements at different levels just to check how uneven the wall might be.



Measuring the surfaces of the fireplace.

- 2 You will need to cut the rear panel first as this is the first one to be installed.

**TIP** Always carry and stack PROMAFOUR® boards carefully. Two people should carry a full board. Each board should be carried on its edge, taking care not to bend it as this can cause internal cracks which may not show in normal conditions but when heated the crack can expand. PROMAFOUR® should be stored on a flat surface in a well ventilated room. NEVER store the boards on their side.



Place your measurements on the board prior to cutting.

- 3 Cut the PROMAFOUR® to the measurements marked on the board for the three faces of fireplace.

The installers in this guide have used a Festool Plunge Saw with dust extractor which we recommend for a straight cut but you can also use a Jigsaw with woodworking saw blade.

**TIP** We advise leaving a 2mm gap from the left and right rear panel boards to allow for expansion when heating. Please take this into consideration when cutting.

Leave a gap of between 1-2mm for the left and right hand side panels from the back panel as this will be glued later.



Using a Festool Plunge saw to cut.



Fitting the board.

## STAGE 2: INSTALLING PROMAFOUR® IN A MASONRY FIREPLACE (CONT.)

**4** The rear PROMAFOUR® board is held in place using PROMAFOUR® Glue 1000 as a bonding compound. Check to ensure it is level and the surface is even.

When screw fixing into the masonry you would need to use a suitable metal wall plug and countersunk wood screw.

**TIP** As is common with older properties some of the walls might be uneven - if this is the case you could use a PROMAFOUR® wedge as shown opposite to pack out behind the board to overcome any unevenness on their side.



Checking the board is level.



Using a PROMAFOUR® wedge to correct uneven walls.

**5** Now apply the PROMAFOUR® pieces you have measured for the left and right of the fireplace in the same way as rear board but you do not need to use compound to hold into place.

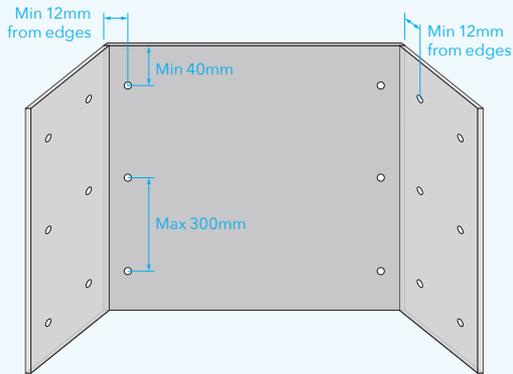
**TIP** If you have uneven walls that the board needs to be corrected for, you can use a hand saw to 'shave' the board to ensure a good fit.



Fixing the left and right pieces.

## STAGE 3: FIXING PROMAFOUR®

- 1 Pre-drill and countersink oversize screw holes in the rear board and at the back of the left and right boards at a maximum of 300mm centres. This is to allow for heat expansion. See diagram.



Fitting the board.

- 2 Screws should be loosely fitted to the boards and fixed into metal plugs. If they are too tight they can put additional tension on the board when the screw expands with the heat, which can cause the board to crack.

Alternatively, you can use countersunk concrete/masonry screws but be careful not over tighten.



Screw being loosely fixed to the rear board.

- 3 PROMAFOUR® Glue is applied in the back left and right corner to help support the left and right boards. Excess should be cleaned with a spatula and a sponge.

**TIP** The glue dries very quickly to a hard finish so clean any excess before it dries as removing when dry can be difficult.

Water can collect in the top of the glue. When opening glue for the first time snip of the top and hold over a bucket for example to allow excess water to be released.



Applying PROMAFOUR® Glue to the back left and right corners.

## STAGE 3: FIXING PROMAFOUR® (CONT.)

- 4** PROMAFOUR® Glue is then applied between the joints of the left and right boards to the rear board.



Fitting the board.

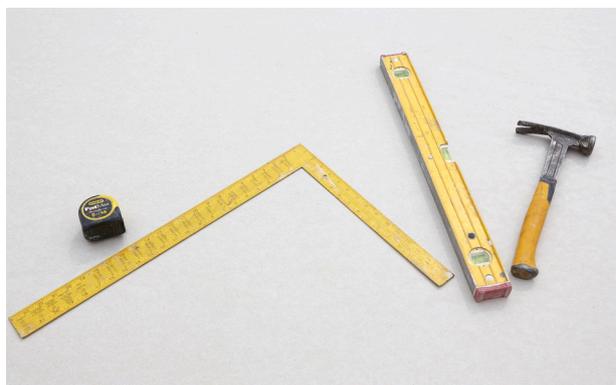
- 5** In most installations the edge of the PROMAFOUR® boards will be hidden by a hearth. Here we show a way of finishing the boards into the surround if this is not possible. If there is no surround you may want to use the joint filler to blend into the wall. If this area gets too hot the non PROMAFOUR® components, such as beading and plaster, may expand or contract with heat and lead to cracking.

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



Fixing using a nail gun.

## Tools needed for installation



## STAGE 4: FINISHING PROMAFOUR®

### Required materials/equipment:

- PROMAFOUR®-HT Joint Filler
- PROMAFOUR® Glue
- Glass paper or sanding machine with fine grit
- Dust extraction equipment
- PROMAFOUR® Primer

**1** Apply PROMAFOUR® Joint Filler to the screw heads to make an even surface. Once filler has dried you will need to sand it down for a smooth surface.

The filler may contract overnight and require re-applying and re-finishing the following day. This should be done before decorating.



PROMAFOUR®-HT Joint Filler is applied to fill the screw heads.



Once dry PROMAFOUR®-HT Joint Filler can be sanded down.

**2** Apply PROMAFOUR® Primer and paint using a suitable paint if painting. Allow 24 hours for the fireplace to dry before painting.

**TIP** Most other primers contain water, if you paint on to this primer, the water content can turn to steam and the paint can 'blister' - PROMAFOUR® Primer contains no water - it is silica based and is ideal for this application.



Applying PROMAFOUR® Primer.

### Important recommendations

Do not finish until the PROMAFOUR® Glue has dried sufficiently (4-6 hours) and then sand down possible irregularities with fine glass paper before filling up the joints with PROMAFOUR®-HT Joint Filler.

1. Smooth and flat surfaces can be obtained easily by using a spatula.
2. Thin layers (up to 1mm) should be left for 2 to 3 hours before sanding.
3. Thicker layers (2 up to 3mm) should be left for 6 to 8 hours before sanding.
4. The finished surface can be painted.

## STAGE 4: FINISHING PROMAFOUR® (CONT.)

- 4** If required PROMAFOUR® can be painted with specialist high temperature paint, such as Keim Paint. Please refer to paint manufacturer guidelines.

**TIP** We have only discussed a paint finish but if you prefer a tiled finished, install with rough side facing the room and prime the rough surface and fix tiles to PROMAFOUR® using PROMAFOUR® glue.



Painting PROMAFOUR®.

- 5** PROMAFOUR® can be tiled with a minimum board thickness of 18mm. The boards should be sealed on both faces with PVA or watered down tile adhesive and allowed to dry.

The boards should be fixed with the textured face outwards, to the supports at 200mm centres. The screws should be countersunk and corrosion resistant. The tile should then be fixed using PROMAFOUR® Glue.

Maximum tile weight: 30kg/m<sup>2</sup>

- 6** Allow 24 hours for the fireplace to dry before lighting the stove for the first time.

**TIP** PROMAFOUR® needs to be gently warmed up. If the fire becomes over heated by burning too much wood in one go, this may damage not only your appliance but may also cause cracks to appear in the boards at first heating, as all refractory material will shrink and expand at high temperature and therefore need time to be settled.

Therefore we recommend at the beginning to heat up slowly to the required maximum temperature, by burning at a low primary air level and not too much wood in one go. High moisture content can lead to cracking if heated up too quickly.



Allow 24 hours for the paint to dry.



A completed clean and aesthetic fireplace.



## HOW TO:

### Install PROMAFOUR® against a timber frame construction

PROMAFOUR® fire  
surround lining systems



# Getting started

## Equipment required



**1. PROMAFOUR® Boards**  
PROMAFOUR® boards are mechanically strong and easy to work with.

Board dimensions are:  
2500mm x 1250mm and  
1250mm x 1250mm.  
Available in thicknesses of  
12, 15 and 18mm.

**2. PROMAFOUR® Glue 1000**  
A refractory silicate based glue which resists to temperatures up to 1000°C. Available in 310ml cartridges.

**3. PROMAFOUR® Primer**  
A non-combustible and vapour permeable primer, which has been designed for use at elevated temperatures. Available in 3 Litre and 1 Litre tubs.

**4. PROMAFOUR®-HT Joint Filler**  
For finishing. Available in 1.5kg tub

**5. PROMASEAL® Silicone Sealant**  
A silicone based fire protection sealant. Available in white or grey colour.

**6. PROMASIL®-1000L**  
A lightweight insulating boards with very good thermal properties.

Board dimensions are:  
2500mm x 1200mm.  
Available in thicknesses of  
25, 30, 40, 50 and 60mm.

### Other items you may need

- Dust and plastic sheeting/matting
- Appropriate PPE - Glasses, gloves, dust masks
- Countersunk wood screws and metal plugs
- Spatula
- Hand saw
- Sponge
- Right angle/set square
- Nail gun
- Spirit level
- Knee pads/air masks with filters
- A circular saw or jigsaw with dust extraction device or with separate dust extraction (The one seen in this guide is a Festool Plunge Saw with dust extractor) other plunge saws are available
- Cutting table
- Hand saw (If required for shaving boards to fit)
- Buckets ( for mixing compounds)
- Cleaning spatula to wipe the excess glue off before it sets
- If painting - paint and roller
- Countersunk concrete/masonry screws.

### Before you begin

Before you begin to install your PROMAFOUR® lining it is important to carefully read the following safety measures and instructions:

- Always observe the safety instructions of the stove manufacturer
- Always ensure safe working conditions and a safe working environment
- Take the necessary precautionary measures to prevent possible injuries
- Always use the correct equipment as described in this installation manual and stove manufacturers guidelines.

This is not a guide on how to install a stove - please ensure you meet building regulations and follow all of the procedures for the stove installation in addition to this process.

# Before you begin

## Safe and reliable

Any flue pipes passing through wooden walls, plaster walls, wooden floors and roof construction should comply with current Building Regulations.

For large fireplace surrounds which extend to the ceiling of the room, we recommend the use of metal U-profiles fixed on the floor and on the ceiling.

Use 2 x 50mm PROMASIL®1000L plus 1 x 12mm PROMAFOUR® fixed to the wall behind the stove. These can be fixed direct to the timber frame using screw nails and PROMAFOUR® Glue.

Alternatively, if required, a ventilated air cavity of 18mm can be provided by fixing 18mm vertical PROMAFOUR® Studs and then applying a minimum of 2 x 50mm thick PROMASIL®-1000L board to the PROMAFOUR® Studs.

The number of PROMAFOUR® Studs that should be used depends on the dimension of the rear wall of the fireplace surround, but a minimum of 3 are used (left, right and centre) but at no more than 625mm centres

The PROMAFOUR® Studs and/or the PROMAFOUR® L profiles can be easily put in place, but never fix the PROMAFOUR® Studs and/or the boards to the metal profiles. The metal U-profiles are only used to facilitate the construction of the framework.



PROMAFOUR® Studs are non-combustible, cut to size profiles, made from the same material as PROMAFOUR® boards. PROMAFOUR® Studs are available as 68mm x 2500mm x 18mm.

18mm thick PROMAFOUR® boards should be used for large tiled surrounds and when heavy objects such as a flat screen TV are attached. Do not use metal profiles near to fire for the construction of the framework as they will expand. Use L-profiles made of PROMAFOUR® Studs instead.

Install the studs 50 to 100mm from the floor and the ceiling of the fireplace surround, to help maintain the ventilation openings in the PROMAFOUR® side wall.

If on a timber floor use 1 x 50mm PROMASIL®-1000L and 1 x 12mm PROMAFOUR®. The floor under the fireplace must be non-combustible.

**NOTE:** Install the insulation to the fireplace floor first before installing the insulation fireplace rear wall. This order of construction will also serve as a stop for the side walls.

**TIP** PROMAFOUR® needs to be gently warmed up. If the fire becomes over heated by burning too much wood in one go, this may damage not only your appliance but may also cause cracks to appear in the boards at first heating, as all refractory material will shrink and expand at high temperature and therefore need time to be settled. Therefore, we recommend at the beginning to heat up slowly to the required maximum temperature, by burning at a low primary air level and not too much wood in one go. High moisture content can lead to cracking if heated up too quickly.

There are 5 stages for the lining of a timber frame fireplace:



## STAGE 1: PREPARING THE EXISTING FIREPLACE

Read carefully the safety, general installer instructions, important recommendations and working and processing instructions of the different products used in this manual.

- Cover your floor and furniture with a blanket or other protective material to avoid possible damage
- Make sure that the floor and rear wall are in good condition. They must be free of moisture, mould, combustible materials and loose parts
- Straighten and level the floor and rear wall as necessary
- Create enough secure and free workspace around the built fireplace
- Even if using a free standing stove, the rear wall and floor must be insulated.



# Insulation of the rear wall, floor and ceiling with PROMAFOUR® and PROMASIL®-1000L

## STAGE 2: INSTALLING PROMAFOUR®

- 1 Remove any trace of dirt and dust and ensure that the surface is level, dry and clean.

- 2 Cut the PROMAFOUR® Studs of 18mm x 68mm to the right length and fix them to the floor and ceiling using suitable fixings. These should be to the timber frame and not to any existing lining.

2 x 50mm PROMASIL®-1000L + 12mm PROMAFOUR® can be fixed to the rear wall. Studs can also be fixed to the floor and the ceiling and are an option on the rear wall for a ventilated cavity.

The 1 x 50mm PROMASIL®-1000L and 1 x 12mm PROMAFOUR® under the stove can be installed with PROMAFOUR® Glue 1000 or by screwing, stapling or nailing. If using glue, ensure that the entire surface between the floor and the PROMAFOUR® Studs is covered.



- 3 Cut the PROMAFOUR® and PROMASIL®-1000L, to the right size and according to the design of your fireplace surround. Provide an opening in the board, wall or ceiling for the flue.

Follow the stove or flue manufacturers installation instructions.



## STAGE 2: INSTALLING PROMAFOUR® (CONT.)

- 4** Apply enough PROMAFOUR® Glue 1000 on the entire surface of the boards, studs and the edges by means of a coarse-toothed glue spatula (3-5mm).



- 5** After a drying time of approximately 3 minutes, press the PROMASIL®-1000L and/or PROMAFOUR® boards firmly to the PROMAFOUR® Studs, floor, wall and/or PROMAFOUR® board according to the design of your fireplace. Don't forget to carefully press the sides of the boards
- Then fix the boards or PROMAFOUR® Studs in each corner by means of screws, staples or nails.



- 6** Install your fireplace/stove and flue following the instructions of the manufacturer.



## STAGE 3: CONSTRUCTION OF PROMAFOUR® FRAMEWORK (Using metal U-profiles and PROMAFOUR®-Studs)

### Required material/equipment

- Required number of PROMAFOUR® Studs of 18mm thick and 68mm for the framework construction of your fireplace surround
- Required number of pre-assembled PROMAFOUR® L-profiles according to construction plan of your fireplace
- Required number of 70mm U-profiles in stainless or galvanized steel
- Standard mechanical or electric screwdriver, pneumatic nailing or stapling equipment
- Dust extraction equipment
- Suitable tools such as a saw, 3mm coarse-toothed glue spatula (see working with PROMAFOUR® boards and Glue)
- Required number of nails, screws or staples
- PROMAFOUR® Glue 1000
- Standard U-profiles are available at your local building materials store. You can use the same standard U-profiles, which are used to build a drywall partition
- The metal U-profiles are used to facilitate the construction of the PROMAFOUR® frame with PROMAFOUR® Studs and L-profiles.

### Preparation

- Take the measurements, where the U-profiles and Studs will be installed and mark these measurements on the floor and ceiling
- Cut the metal U-profiles and PROMAFOUR® Studs to the right size
- Assemble the PROMAFOUR® L-profiles by fixing two PROMAFOUR® Studs lengthwise and with a right angle to each other by means of PROMAFOUR® Glue and stainless or galvanized steel screws, staples or nails
- Glue and screw, staple or nail the PROMAFOUR® Studs to L-profiles, the day before installation to ensure the glue has cured.

### Important recommendations

1. Use care and correct fixings to fix U-profiles in a stone floor
2. To allow thermal movement of the entire PROMAFOUR® fireplace surround we advise you to not connect the PROMAFOUR® boards and Studs to the metal U-profiles.
3. Instead of the metal U-profile, PROMAFOUR® L-profiles composed of PROMAFOUR® Studs may be used. This is recommended when the stove is installed close to the PROMAFOUR® framework and for fireplace surrounds that are not built to the ceiling. In this case, the PROMAFOUR® boards and Studs may be fixed to the PROMAFOUR® L-profiles
4. The corners of the PROMAFOUR® framework must be made with PROMAFOUR® L-profiles made from PROMAFOUR® Studs.

5. Be careful not to damage pipes which run through the floor, when fixing the metal U-profiles
6. To determine the outer dimensions of your fireplace surround, take into account the thickness of the PROMAFOUR® board and of the U or L profile
7. Plan or install the PROMAFOUR® framework in such a way that the PROMAFOUR® front side can be installed over the entire width and height of your fireplace to avoid visible seams at the front. This can be achieved by installing the PROMAFOUR® front wall over the edges of the PROMAFOUR® side walls and of the PROMAFOUR® cover plate when the fireplace is not built up to the ceiling. For fireplaces over 1.25m in width, we advise you to install the front PROMAFOUR® boards horizontally to avoid vertical seams
8. If an air gap for ventilation is planned this can be easily constructed with L and T-profiles from PROMAFOUR® Studs

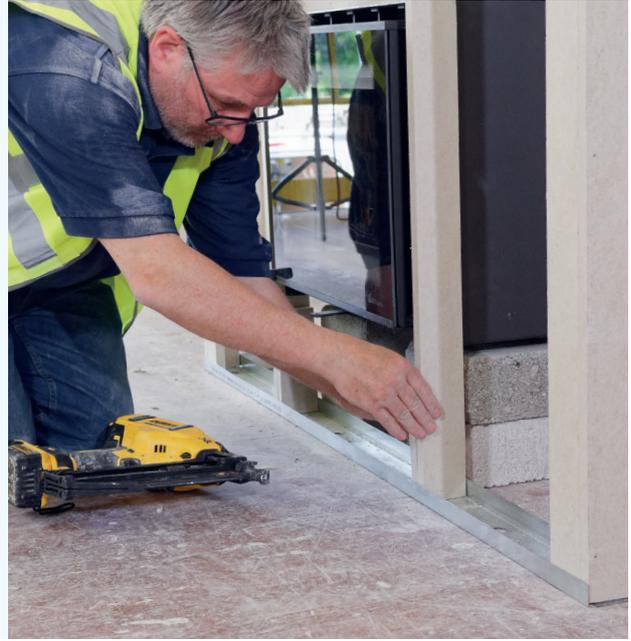
**NOTE:** The attached L-profiles and the thickness of the side and front panels (15 or 18mm) to form the outer dimensions of the fireplace must be considered. As the metal U-profiles are only there to help the construction of the PROMAFOUR® framework. The PROMAFOUR® Studs, L-profiles and boards should not be fixed to the metal U-profiles

## STAGE 3: CONSTRUCTION OF PROMAFOUR® FRAMEWORK (CONT.) (Using metal U-profiles and PROMAFOUR® Studs)

**1** Remove any trace of dirt and dust and ensure that the surface is level, dry and clean.

**2** Cut the PROMAFOUR® Studs 18mm x 68mm, L-profiles and the metal U-profiles to the right length and fix them to the floor and rear wall of your fireplace using PROMAFOUR® Glue and screws.

Put enough glue on the entire surface between the floor/wall/ceiling and PROMAFOUR® Studs and or L-profiles and remove the excess of glue at the outside of the PROMAFOUR® framework before the glue has cured.



**3** Place both PROMAFOUR® L-profiles in the corners of the metal U-Profiles.



## STAGE 3: CONSTRUCTION OF PROMAFOUR® FRAMEWORK (CONT.)

(Using metal U-profiles and PROMAFOUR® Studs)

- 4** Place two vertical PROMAFOUR® Studs in the metal U-profiles, one on each side of the fire and two to the rear wall on both sides of the framework.



- 5** Place two horizontal PROMAFOUR® L-profiles between the vertical PROMAFOUR® Studs that have been placed next to your stove at the same level of the upper and lower side of the stove and install one additional vertical PROMAFOUR® Stud in the middle of the two installed vertical Studs. Screw them on one side to the horizontal L-profile above the stove and put them into the U-profile on the ceiling.



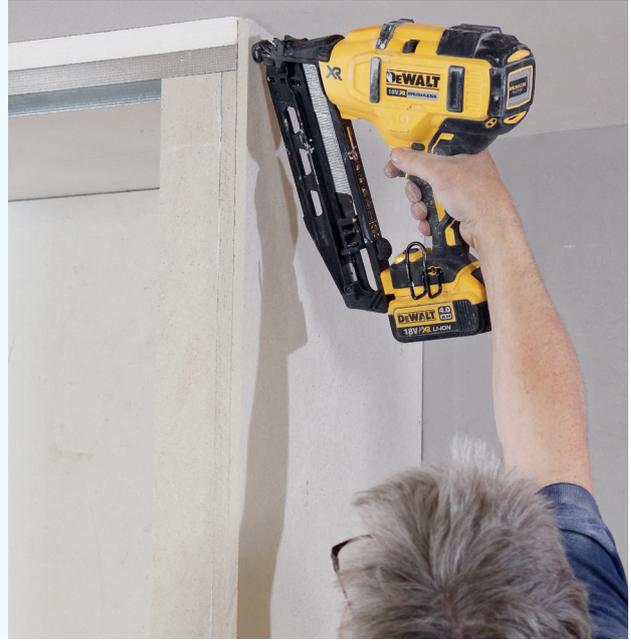
- 6** Provide a 3mm gap between the PROMAFOUR® Studs, PROMAFOUR® L-profiles and the stove to allow for expansion when heated.



## STAGE 3: CONSTRUCTION OF PROMAFOUR® FRAMEWORK (CONT.) (Using metal U-profiles and PROMAFOUR® Studs)

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If metal U-profiles are not used the PROMAFOUR® Studs and PROMAFOUR® L-profiles can be fixed together with PROMAFOUR® Glue and screws or staples.



8

For additional stability, PROMAFOUR® Studs and PROMAFOUR® L-profiles should be installed between the main PROMAFOUR® Studs.

Additional PROMAFOUR® Studs and PROMAFOUR® L-profiles should not be more than 600mm centres vertically and horizontally.



## STAGE 3: CONSTRUCTION OF PROMAFOUR® FRAMEWORK (CONT.)

### (Using metal U-profiles and PROMAFOUR® Studs)

**9** The fireplace surround will only achieve full stability after the installation of the PROMAFOUR® boards to the front, sides and top of the surround.

**10** Provide enough space between the PROMAFOUR® Studs and the stove to allow it to expand when heated. Insufficient space could damage the entire system.

Consult the installation guidelines for your stove to determine the space that must be left. If there is any doubt contact the stove manufacturer or consult your installer.



## Important recommendations

- Determine the required dimensions and number of PROMAFOUR® boards
- Joints between PROMAFOUR® boards on the front face should be chamfered (See Stage 4)
- Optionally, the PROMAFOUR® boards can be mitred at the corners (See Stage 4)
- The visible side of the PROMAFOUR® surround is the smooth side of the PROMAFOUR® boards
- For fireplace surrounds a minimum of 12mm thick PROMAFOUR® boards are used.
- 18mm thick PROMAFOUR® boards are used for large tiled fireplaces and when heavy objects such as a flat screen TV are attached
- Install the PROMAFOUR® front side boards over the edges of the PROMAFOUR® side walls and of the PROMAFOUR® top board, (when a fireplace surround is not built up to the ceiling)
- For fireplaces > 1250mm width, we advise you install the front PROMAFOUR® boards horizontally, to avoid vertical seams
- Even in the case of a free-standing stove, the rear wall and floor must be insulated
- Use 2 x 50mm thick PROMASIL®-1000L board and 1 x 12mm PROMAFOUR® board for the rear wall.

If on a timber floor use 1 x 50mm PROMASIL®-1000L and 1 x 12mm PROMAFOUR®. The floor under the fireplace must be non-combustible.

The sides of the insulated rear wall and floor can be closed by strips cut from a 12mm thick PROMAFOUR® board and glued and screwed, nailed or stapled to the edges of the PROMASIL®-1000L boards.

## STAGE 4: INSTALLATION OF PROMAFOUR® BOARDS

**11** Cut the PROMAFOUR® boards to the correct size. Prepare the edges of the boards if required. (See Step 4)

**12** Fix the PROMAFOUR® boards to the PROMAFOUR® Studs using PROMAFOUR® Glue.

Then fix with stainless steel screws or staples.

**13** Place two vertical PROMAFOUR® Studs in the metal U-profiles, one on each side of the fire and two to the rear wall on both sides of the framework.



## STAGE 4: FINISHING OF THE PROMAFOUR® JOINTS

### Installation

#### 1. Corners made of boards with square edges

Apply a layer of PROMAFOUR® Glue between adjacent edges of the PROMAFOUR® Boards and press firmly together.

Smooth down the surface of the boards with another layer of PROMAFOUR® Joint Filler. Sand down any irregularities.

#### 2. Corners of boards made with chamfered edges

(V- shape maximum 15mm - 25mm width)

Smooth down the surface of the boards with another layer of PROMAFOUR® Joint Filler. Sand down any irregularities.

#### 3. Corners of boards made with mitred angle.

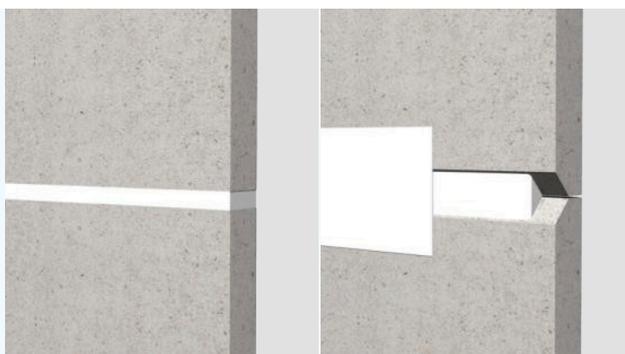
Smooth down the surface of the boards with another layer of PROMAFOUR® Joint Filler. Sand down any irregularities.



#### A. Joints made of boards with square edges

#### B. Joints made of boards with chamfered edges

(V- shape maximum 15mm - 25mm width)



## STAGE 5: CONSTRUCTION OF PROMAFOUR® FRAMEWORK

### First heating of fireplace

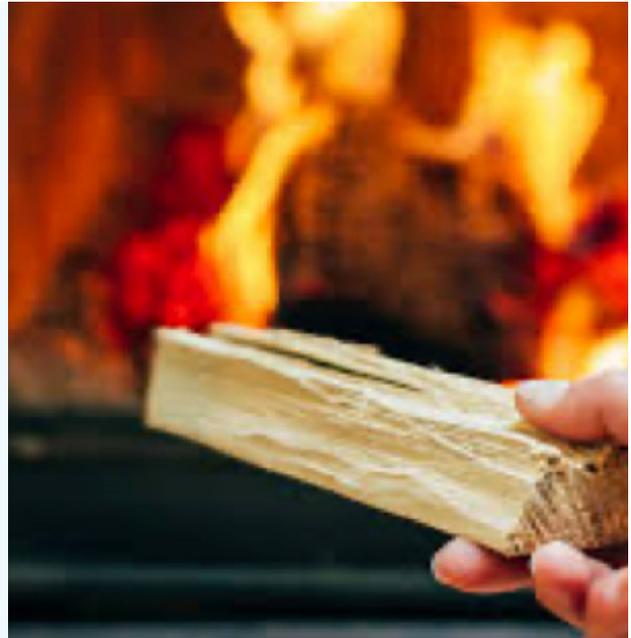
**Allow 24 hours for the fireplace to dry before painting.**

When first heating, avoid over-loading the stove, caused, for example, by lengthy burning with primary air or by burning too much wood in one go. The stove can then become over-heated. This may damage not only your entire appliance but will also cause cracks in your fireplace surround at first heating.



All refractory material will shrink and expand at high temperatures and therefore need time to be settled in. We therefore recommend at the beginning, to heat up slowly to the required maximum temperature by burning at low primary air level and not using too much wood in one go.

It is also recommended to start finishing your fireplace surround after first heating when your fireplace surround has settled. Any cracks can then be easily restored by making the cracks over the entire length 1.5 mm to 2mm wider and filling with PROMAFOUR®-HT Joint filler.



# Frequently asked questions

## Can I plaster PROMAFOUR®?

### We do not recommend this.

The board finish is smooth and ready to be painted once primed. Even high temperature plaster is not guaranteed against cracking and the plaster accessories, such as metal beading, expand with high temperatures which makes an unreliable finish for fireplaces.

## Can I join plasterboard/plaster surface to PROMAFOUR® in one continues line?

Whilst PROMAFOUR® offers a high quality finish, it looks slightly different to a plastered one, even with the same paint on both surfaces, therefore we wouldn't recommend this approach.

## I have a large fireplace, can PROMAFOUR® be used in this instance?

Yes it can - The maximum height for use with inset fires is 3.5m. This is due to the fact that it will be a false wall and any higher you would need a solid structure to build off. In the case shown we are fixing PROMAFOUR® to a solid wall.

Please contact Promat Technical Services on 0800 145 6033 (select option 2) or email: [technical.promat@etexbp.co.uk](mailto:technical.promat@etexbp.co.uk) if you have any enquiries.

## What type of paint should I use on PROMAFOUR®?

A Silicate/non-organic content paint (such as Keim Paint). Always check with the manufacturer that it is suitable for the application and never use a paint with an alkyd content.

## Can I tile PROMAFOUR®?

Yes - See the relevant sections on how to tile PROMAFOUR®.

## How do I dispose of any PROMAFOUR® waste?

PROMAFOUR® may be disposed of with ordinary building material waste (always observing local and national legislation).

## Can I wallpaper on to PROMAFOUR®?

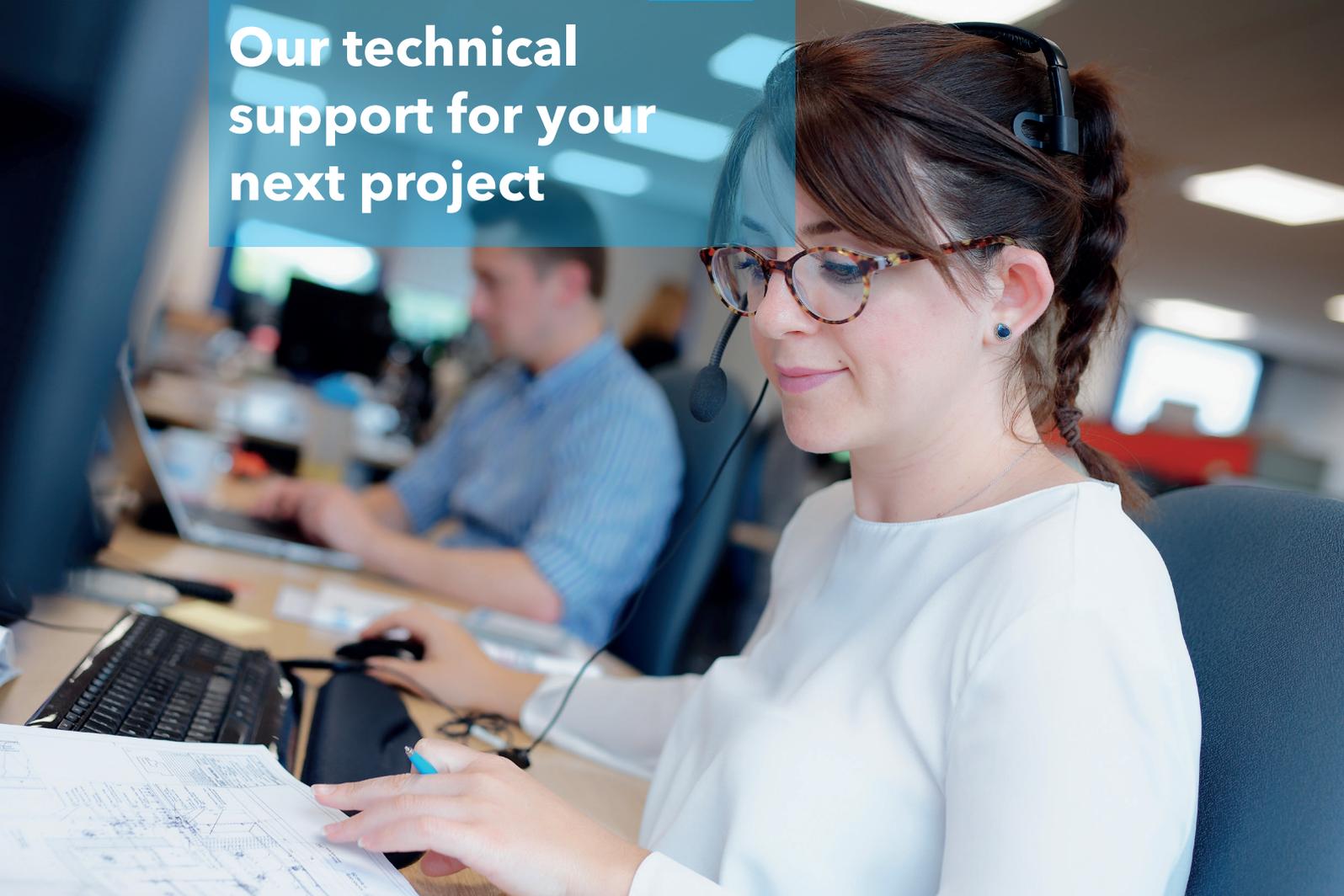
Yes - Please ensure any wallpaper and adhesive is suitable for this application before installation.

## Where can I buy PROMAFOUR®?

Stockist information can be found on [promat.co.uk](http://promat.co.uk) on the PROMAFOUR® product page.







## 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 legal 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 job.

**Do not hesitate to contact us.**

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

📞 0800 145 6033



### Technical Services

For technical support and advice.

T: 0800 145 6033

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

### Etex Building Performance Limited

Marsh Lane, Easton-in-Gordano,  
Bristol, BS20 0NE

T: 01275 377 773

F: 01275 379 037

[PROMAT.COM](http://PROMAT.COM)