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EUROBRICK
BRICK SLIP SYSTEMS

P-CLAD®



Installation instructions

EDITION 2

Before starting any Eurobrick Systems installation, please read the instructions carefully. P-Clad must be installed in accordance with these instructions.

If any questions do arise, contact our Technical Support Department by calling 0117 971 7117 or emailing info@eurobrick.co.uk.

Product data

Panel: 10mm thick Cement Particle board with Eurobrick's high impact styrene ribbed skin pre-bonded to it. Each Eurobrick Systems panel measures, nominally, 1200mm x 2400mm. The horizontal brick tracks running the 1200mm width, align and support the brick slips so that brick courses are formed accurately and easily.

Bricks: All Eurobrick Systems brick slips are kiln fired clay and are nominally sized:

Britannia range brick slips are nominally sized:

Slips	215mm x 65mm x 14-15mm
Corners	215mm x 65mm x 102mm x 65mm x 14-15mm

Classic range brick slips are nominally sized:

Slips	215mm x 65mm x 20-25mm
Corners	215mm x 65mm x 102mm x 65mm x 20-25mm

Fasteners: Stainless steel washer, 36mm diameter, used in conjunction with a stainless steel screw.

Adhesive: Specifically formulated one part polyurethane or one part high grab MS polymer adhesive moisture curing, non-hardening which remains gunable even at temperatures as low as 2˚C, for normal applications.

PLEASE NOTE

Adhesive cures in temperatures of 5°C and above.

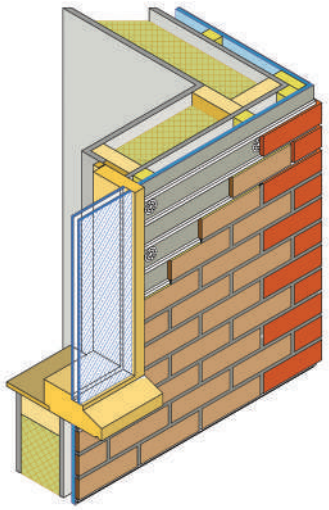


Figure 1

Mortar: Eurobrick Systems' Europoint dry pack pointing mortar is specially formulated to enhance ease of application, adhesion properties and flexibility. Just add clean water and mix.

Installed system weight: System weight approx 53–55kg/square metre, subject to specification (excluding supporting structure and mechanism).

Applications

P-Clad is for use as an external sheathing on structures and is usually applied to timber battens or steel brackets or similar. See Figure 1.

Do not install over asbestos cladding. Application over steel, aluminium or vinyl cladding is not recommended unless the P-Clad panels can be attached directly to the existing stud configuration.

Where stud positions do not align with P-Clad fixing requirements some device to correct this should be used such as horizontal rails or an additional layer of plywood or CP board etc. See Figure 2.

PLEASE NOTE

Substrate surfaces must be dry, flat and stable.

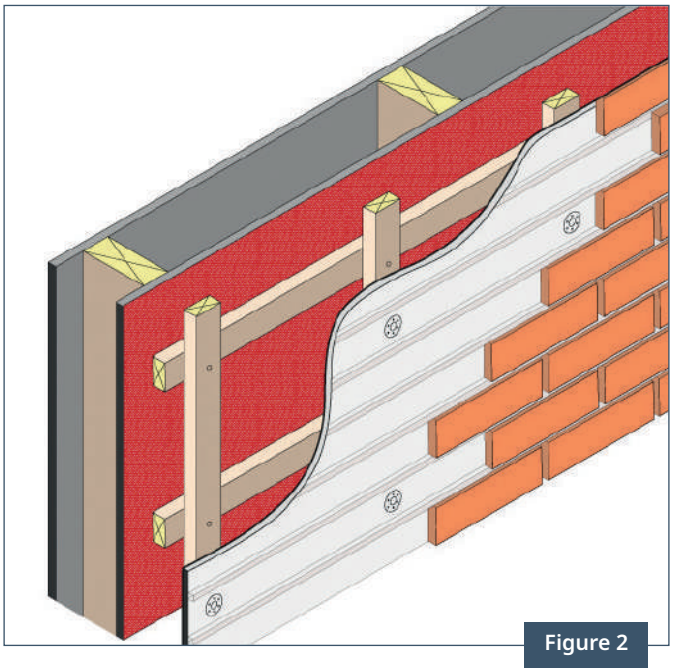


Figure 2



Tools

To ensure ease of installation we recommend you have the following tools:

- 120mm diameter powered disk cutter or wet saw
- 250-300mm diameter powered disk cutter
- Adhesive applicator gun*
- Pointing bag with metal tip*
- Joint pointing tool*
- Powered screwdriver
- 2m level
- Chalk line
- Utility knife
- Measuring tape
- Marker pen

*See Accessories list.

PLEASE NOTE

You will need a masonry saw with a diamond edged blade if any angular or horizontal cutting of brick is required. Suitable PPE protection must be worn.

Limitations

1. **Application temperature range**
   Eurobrick Systems should not be applied to surfaces that will exceed 140˚F (60˚C).

2. **Supporting frame member spacing**
   Where P-Clad panels are to be fixed to battens or studs (creating a cavity), these **MUST** be set out to satisfy system fixing requirements.

   There must be 4 vertical fixing members behind each 1.2m wide panel. See Figure 3 (page 4).

3. **Fire Rating Euro Classification of Reaction to Fire**
   EN13501-1, B-s1, d0

Ordering

System materials are priced to suit particular project requirements.

When ordering please state the nett area of the wall and give the total linear metres of the corner length, identifying dimensions of external corners, window reveals and heads. Please also advise base trim and expansion joint requirements.

Fasteners: Allow 15 per square metre (minimum).
Please specify substrate type (timber, metal) when ordering.

Mortar: Specially formulated to provide superior bonding strength. Packaged in 25kg bags; 1 bag covers approximately 2.5–4 square metres subject to brick thickness and joint size.

Delivery

Materials are normally palletised. Delivery may be by pallet network or dedicated vehicle and may have self-offload equipment. Please advise of any particular site requirements or restrictions at time of ordering.

All deliveries must be thoroughly inspected prior to signing delivery note and any damage or missing items should be noted on the delivery note and notified to Eurobrick immediately.

Material handling and storage

System materials must be safely handled and stored to prevent damage. Panels should be protected from wind damage. Brick slips should be kept clean and dry. Mortar and adhesive should be stored under cover in dry conditions.

CAUTION!

Each P-Clad panel weights 44kg and requires 2 persons to lift.

Panel installation

Placement of first panel

The first panel may be positioned anywhere along the wall, we suggest beginning at an outside corner.

Align the panel in such a way as to obtain a full 65mm brick at the soffit or top edge of the wall or refer to another consistent datum such as window head height.

When you have established the proper height, place the 2m level in the brick track and level the panel. It is important that panels are levelled by reference to the rib/brick track and not the edge of the panel itself. The ribbed skin may not be perfectly square with the carrier panel.

Cutting panels



CAUTION!

Appropriate PPE must be worn.

Where panels have to be cut, this must be done carefully, using a suitable saw. Ensure panel is safely supported from below during cutting. Cutting should be done in a well ventilated location.

Panel fastening

Fastening layout

P-Clad panels are normally fixed to vertical battens or studs, top hats or other bracket systems. These must be located accurately to coincide with system design fastener layout. See Figure 3.

For detailed Fixings Layout drawing please visit eurobrick.co.uk/downloads

Fasteners should be used at a rate of approximately 15 per square metre or: 1 fastener every 4 courses vertically and 4 across the panel horizontally starting 45-50mm from each edge.

Where severe wind loads are anticipated additional fasteners should be fixed every other course at building corners and openings.

PLEASE NOTE

That top and bottom courses of every panel or part panel must be properly retained with a row of fasteners.

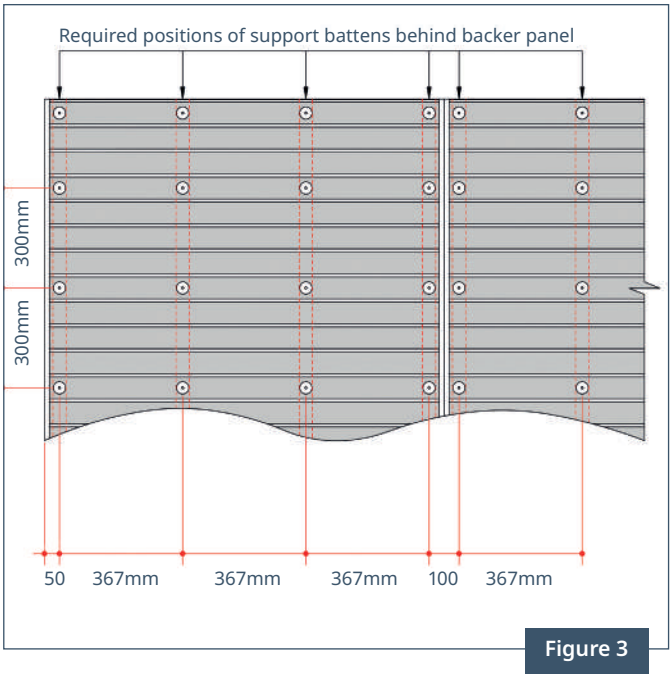


Figure 3

Fixing holes must be drilled and countersunk to ensure fasteners sit flat with surface of panel. Support the panel on two or three timber bearers on the ground, or on the top of the stack of panels, transposing the positions of the battens to the panel to establish the required positions of the holes. Then drill and countersink the holes before the panels are offered up to the wall.

When installing stone slips or heavier brick slips, extra fasteners should be used at a rate of every other course throughout.

When stacking panels one above another for multi-storey application, be sure to overlap bottom polystyrene skin drip edge of top panel over top of lower panel taking care to maintain correct coursing alignment. The horizontal joints must be sealed.

Jointing tape



Jointing tape or adhesive must be used to seal all panel abutments/joints (horizontal and vertical) to prevent water penetration. Adhesive or sealant can be used.

Fastening to wood or metal studs

1. Insert wood or metal screw into the stainless steel washer.
2. Drive the fastener in with the electric screw gun.

PLEASE NOTE

To achieve proper attachment the panel fasteners must penetrate the various substrates as shown in Figure 4. The substrate must be flat and stable and strong enough to provide firm anchorage for fixings. Where fixing to thinner sheathings, it is recommended that fixings penetrate the sheathing and the supporting member.

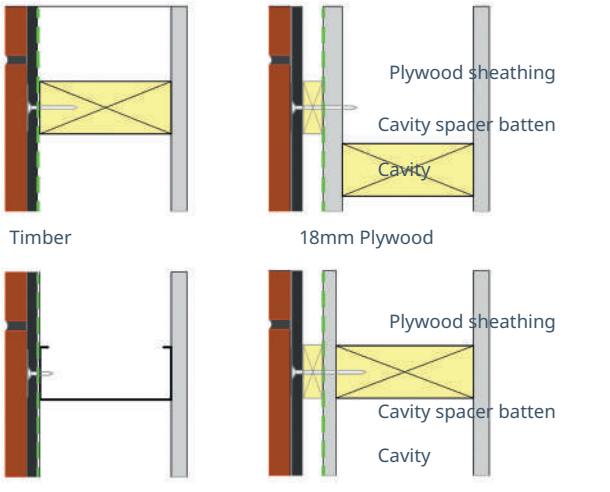


Figure 4

Base trim

Before fastening the bottom 610mm - 750mm of the panel, we recommend the installation of our base trim. The base trim will protect the bottom edge of the panel and brick slips from damage. See Figure 5.

Aluminium base trim can be supplied as part of the Eurobrick system.

Installation

1. Trim the lowest rib from the bottom edge of the panel.
2. Insert the base trim.
3. Use a single brick as a guide to set the trim at the proper height. From trim to top side of next rib should be 75mm.
4. Fasten the base trim and panel together to the substrate following the instructions for panel fastening.

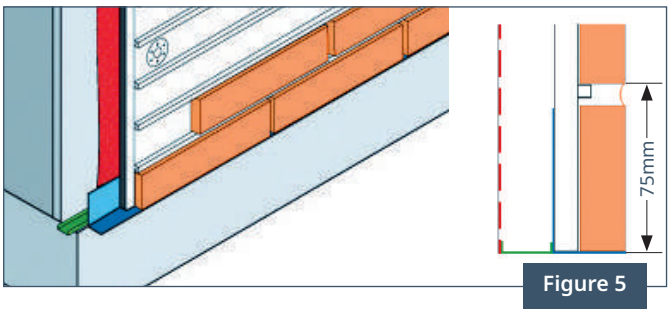


Figure 5

Panel installation at corners

Inside corner

When installing the panel at an inside corner, butt the edge of the panel up to the face of the panel on the adjoining wall and seal with adhesive. Brick slips should be cut into corners on alternate courses so as to replicate the alternate course internal corner bonding of full brickwork. See Figure 6.

If required, mastic sealant can be applied to close corner joint.

Outside corner

When installing panels at an outside corner there are three important things to remember.

1. Panels must overlap to prevent the creation of a void in the area behind brick and be sealed with tape or adhesive to weather the joint. See Figure 7.
2. Where severe wind loading is anticipated additional fasteners should be installed every other course at external corners.
3. Align the brick tracks of the two corner panels at the corner very carefully to ensure continuity of the working level around the building.

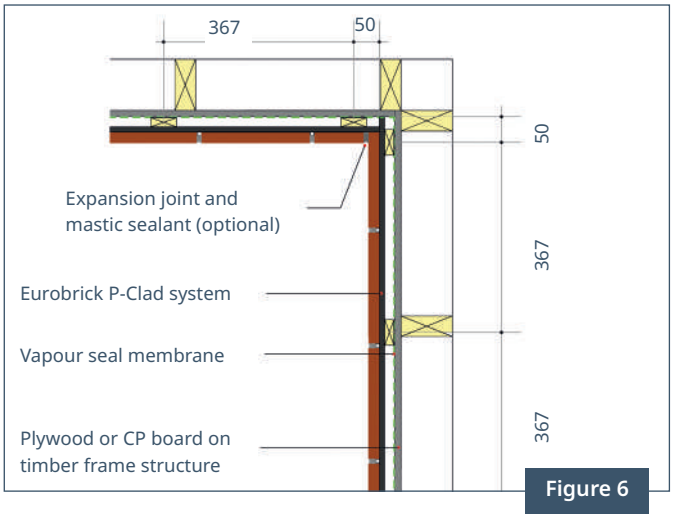


Figure 6

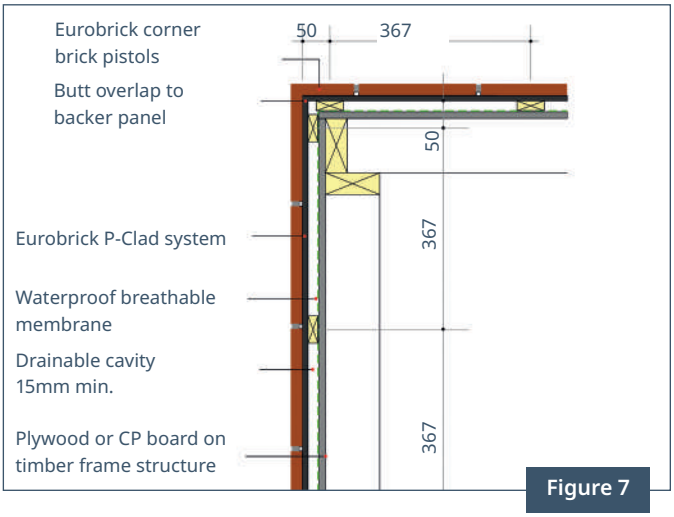


Figure 7

Panel installation at doors, windows and other obstructions

When cutting panels to fit around windows, doors and other obstructions, allow a clearance of approximately 3mm between the edge of the panel and the obstruction. See Figure 8.

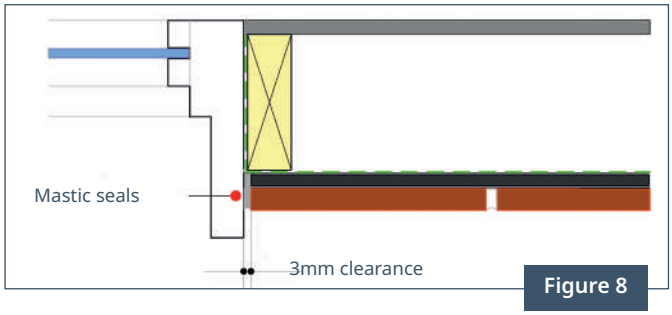


Figure 8

Panel installation at termination

P-Clad should not be installed below ground level if there is risk of permanent exposure to moisture. To cover concrete/masonry foundations, X-Clad system or special cement fibre board P-Clad can be used or brick slips attached directly to substrate.

Below ground

When pavement or road surfaces are to be installed next to Eurobrick Systems, care must be taken to prevent damage caused by movement through settling, expansion and freeze/thaw cycles. A fibrous control joint (minimum 25mm) must be placed between the building and the pavement, road or natural ground to allow independent movement.

Below DPC use the special 9.5mm cement fibre board version of P-Clad or use X-Clad. A damp proof course should be extended through the system and brick slips to prevent moisture from the ground being drawn up through brick slips or behind panels.

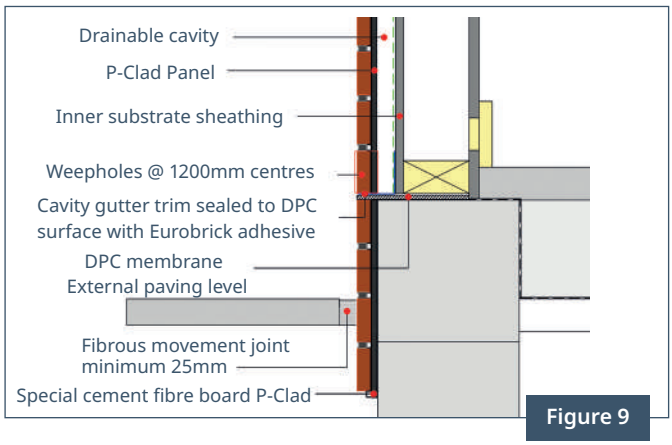


Figure 9

Please note, where cavity included, provide weepholes through the system at 1200mm centres. See Figure 9.

Above ground

Where the system is to terminate above ground, we suggest a gap of 40mm is allowed above ground/paving finishes.

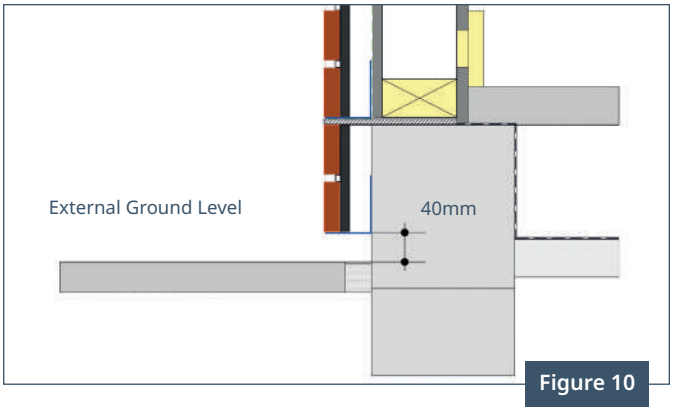


Figure 10

This is to allow for expansion/heave and prevents damage to the bottom of the cladding system. In colder climates or expansive soils, allow greater clearance as required. See Figure 10.

Panel expansion joint installation

To prevent damage resulting from the natural expansion and movement of brick, expansion joints must be constructed. The following is a general guide for expansion joint location. See expansion joint Figure 10.

1. In large walls, every 6m horizontally and vertically. The initial movement joint should be located 1200mm to 2400mm from the building corners.
2. Where walls of different heights intersect.
3. Between new and existing construction.
4. Where dissimilar exterior wall materials meet.
5. Between every other floor. In timber frame movement joints may be required at every floor level.

PLEASE NOTE

Movement joints may not necessarily align with substrate expansion joints.

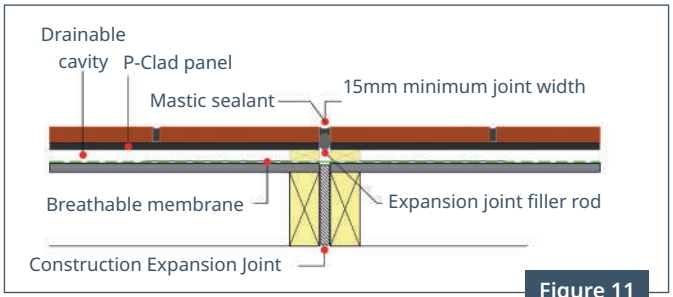


Figure 11

Fire breaks

Some installations will require design and construction of fire break details to cavities and/or the system in accordance with Building Regulations requirements.

Responsibility for appropriate fire break detailing lies with the architect or qualified fire engineer.

Brick application

Surface preparation

Make certain that panel and brick surfaces are dust free and dry. Failure to do so will result in poor adhesion to the brick panel.

Setting out

Start by attaching corner bricks to most visible outside corner.

1. Apply a single 10-12mm bead of adhesive to the inside faces of corner bricks. Push them into the track profile. Once the corners are placed use a straight edge to align them as well as possible.
2. To determine brick spacing and setting out, apply a 10-12mm bead of adhesive to two courses on the panel and fix slips along two courses as far as the first natural break (door/corner/expansion joint). Try to space bricks with 10mm vertical joints, but so the end of the run finishes with a whole or half brick. Joints can be opened or closed within a range of 7 or 8mm to 15mm to assist. Joints should be a consistent size. See Figure 12.

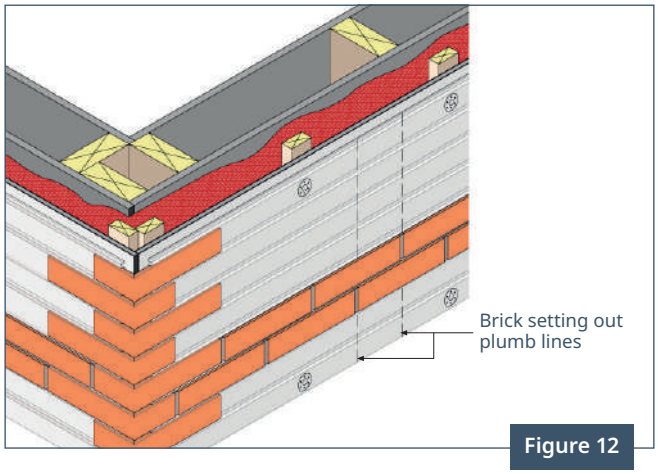


Figure 12

BRICK MIXING

Please note brick slips can vary in length and colour shade. Slips should be mixed from various boxes/pallets to ensure even distribution of brick characteristics.

3. When the desired spacing is achieved, use a spirit level and marker pen to draw vertical plumb lines on the panels. These should be drawn every 5 or 6 bricks across the wall. Pairs of lines should be drawn to allow correct alignment in bond of alternating courses. Fix slips at plumb lines first before filling in remaining spaces.
4. Where working around windows and doors the bond may be broken. Avoid using pieces less than half a brick and use additional cut pieces such as three-quarter closers to maintain reasonable bond pattern.

Another factor in brick spacing is whether or not there are obstructions in the wall.

Without obstructions

If the wall has no obstructions lay two courses of brick working to the next inside or outside corner or expansion joint. Space the brick to allow a full brick at the corner. Ensure joints are a consistent size.

When you have achieved the desired spacing, draw plumb lines on the panels as described previously. The plumb line serves as a reference for every other course. For courses with no plumb line, be sure to centre the brick on the vertical joint of the course above and below.

With obstructions – doors, windows and other obstructions

Adjust the brick spacing to prevent the need for a mortar joint or very small piece of brick at the edge of the window, door or obstruction. Try to avoid using pieces smaller than a half brick adjacent to doors and windows.

When the desired spacing has been achieved, section the wall as described previously.

CAUTION!

Once backer panels have been installed they should be bricked immediately. Where this is not possible, panels should be protected from exposure to direct sunlight which can cause deterioration of material due to UV light.

Expansion joint

Space brick to allow a full brick on both sides of the expansion joint. See Figure 13. Apply appropriate sealant to the expansion joint after brick application.

CAUTION!

Do not apply the adhesive or mortar to the expansion joint area.

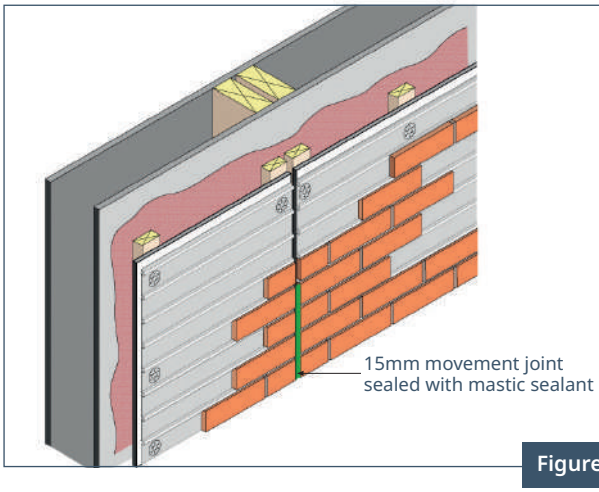


Figure 13

Brick layout exception

There are times when it is not possible to run a course of brick to determine proper layout and spacing. In these cases determine the layout mathematically.

The length of a brick is 215mm and the standard mortar joint is 10mm; use 225mm as the standard increment.

PLEASE NOTE

Brick slips may vary in length and therefore some flexibility in joint size may be required.

Brick slips installation

Standard

After plumb lines have been drawn, apply a 10mm bead of adhesive 3/4 of the way up the course. Continue adhesive application for approximately 20 courses. The adhesive should cover the fastener head.

After applying adhesive, push bricks into brick tracks. Repeat the procedure for each successive section.



Soldier course

Installing brick slips in vertical soldier courses uses 3 'brick tracks' on the backer panel. To prepare the panel:

1. Score through the skin either side of the 2 ribs 'obstructing' the soldier course and peel these ribs off the panel.
2. Apply some adhesive to the 'scar' created and smooth off, sealing the cut edges of the skin.
3. Apply adhesive to the upper and lower edges of the soldier course, or to the back of the slips if preferred.
4. Attach slips in soldier formation taking care to achieve appropriate bond.
5. A temporary piece of batten may be required to hold bricks in place while adhesive cures. This can be screw fixed to substrate through the brick joints.

Window and door openings

Flush

When applying brick around window or door openings which have linings, trims or frame with front faces that are slightly set forward from the front face of the brick slips, place the factory formed edge of the brick slip (not a cut edge) against the lining, trim or frame to provide the best finish. See Figure 14.

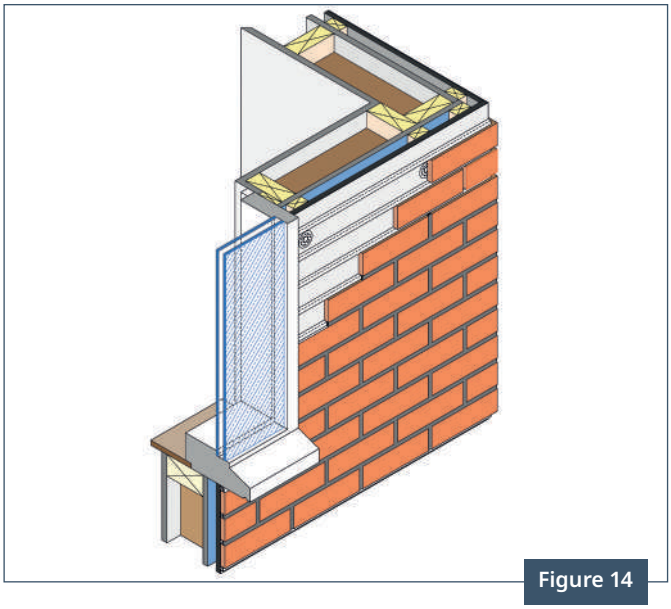


Figure 14

Recessed

When installing cladding to window and door reveals, (see Figure 15) install to allow a 3mm wide expansion gap between the backer panel fixed to the reveal and the backer panel fixed to the main wall face.

In some cases where the combined thickness of the backer panel and brick slip finish is too thick for the width of the exposed window frame and where it is not possible to install a suitable sub-frame to solve the problem, brick slips can be bonded direct to the substrate. When installing over a timber substrate, the timber should be protected by a membrane and a galvanised wire mesh lathing must be securely fixed to the timber substrate before bonding the brick slips.

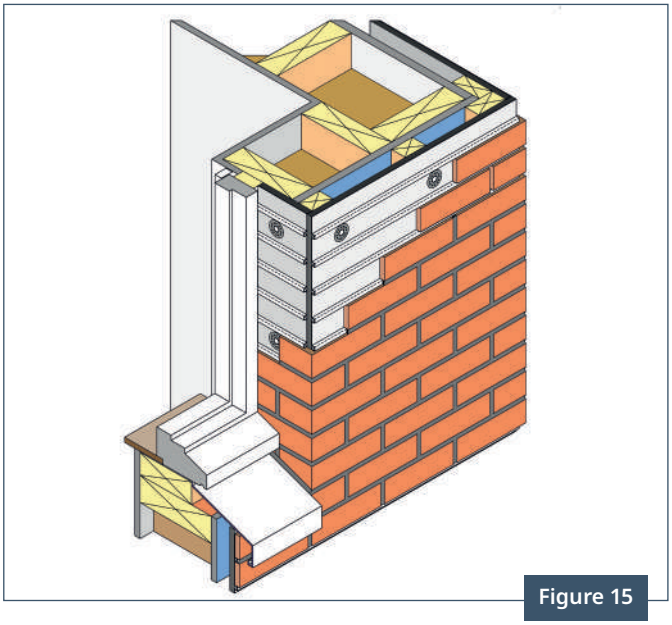


Figure 15

CAUTION!

Do not attach brick directly to any wood surface.

Cills

Be sure that window cills extend beyond the brick edge. See Figure 16.

Ensure that waterproofing membrane is properly returned and finished at window and door openings prior to fixing the brick cladding system.

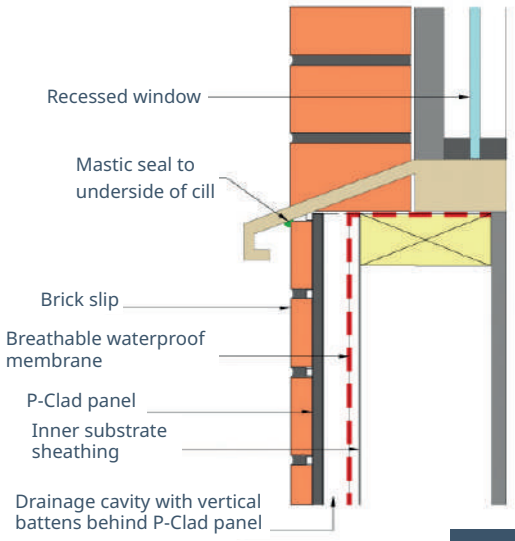


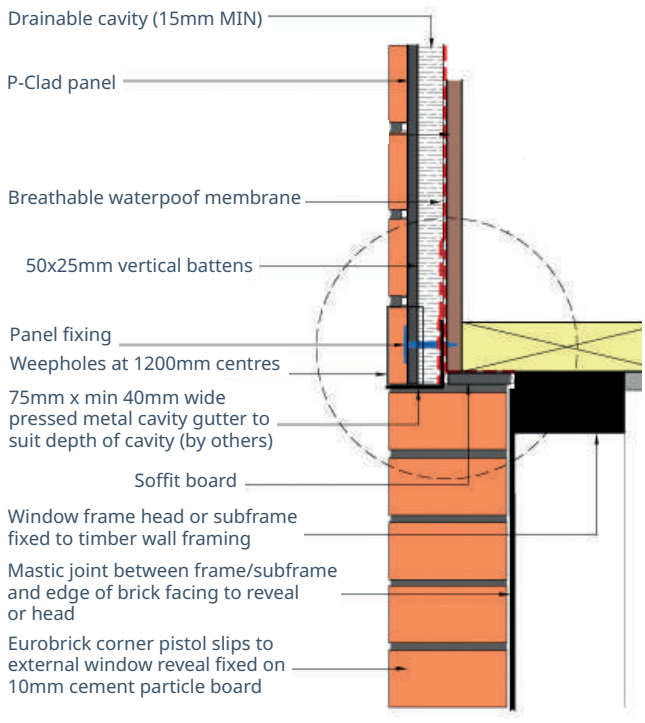
Figure 16

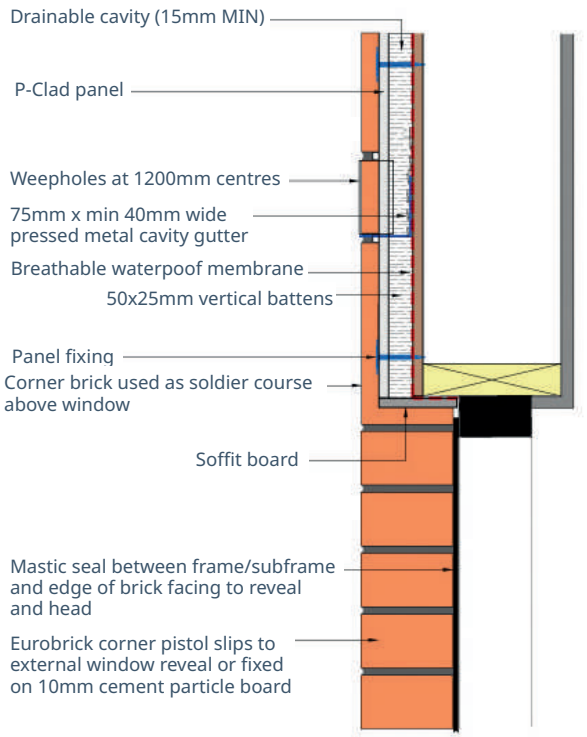
PLEASE NOTE

If the length of the return exceeds 102mm, a combination of corners and straight slips must be used. Where Eurobrick Systems panels are not installed over the window/door reveal area and the brick straights can not be pushed into the brick tracks, we recommend that the slips are held in place using nails tapped into the wall surface at the bottom edge of the brick. Remove nails when you are certain that the brick slips are firmly attached.

Window and door head design

Heads of opening can be treated in different ways from continuing stretcher bond slips over the opening with slips sitting on or close to a trim (supplied by others), to using corner bricks in soldier orientation. Please note that different design details will alter the datum for the brick slip coursing. Also, drainage of the cavity behind the P-Clad installation must be maintained and weephole location may therefore need to be changed. See Figure 17.





NOTE: CAVITY GUTTER WIDTH TO SUIT CAVITY WIDTH PLUS 25MM.
LENGTH OF GUTTER TO SUIT OPENING WIDTH PLUS 150MM EACH SIDE OF OPENING

BREATHABLE MEMBRANE TO BE FITTED AND SEALED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

Figure 17

Pointing

Instructions are available on our website, please call for a printed copy. A video is also available on our YouTube channel.

Mortar

Eurobrick Systems Europoint mortar is specially formulated and packaged in easy to use 25kg bags.

Mixing mortar

Mortar is easily mixed in a 25 litre bucket, using an electric drill with a "paddle" mixer attachment. The consistency should be slightly wetter than standard mortar. We recommend about 4–4.5 litres of water per 25kg bag. A final test of proper consistency is the flow of the mortar from the grout bag; it should flow slowly from the tip in drops.

CAUTION!

Mortar should be mixed outside or in well ventilated areas. Appropriate PPE should be worn.

Filling the pointing bag

Roll back the top edge of the pointing bag once to create as large an opening as possible. With a scoop, fill the bag 2/3 full being careful not to get any mortar on the top edge of the bag.
After filling the bag hold it just above the fill point with one hand and twist with the other until the opening is closed tightly.

Point the joints

Pointing mortar should not be applied in temperatures below 4˚C.

To apply mortar

1. Squeeze the bag with a slight twisting motion at the end to keep the bag firm at the tip.
2. Whether to fill the horizontal (bed joints) or vertical (perp joints) first is personal preference.
3. Joints should be filled almost to the point of overflow. Ensure joints are properly filled with no voids or gaps.
4. Apply mortar to the vertical joints when the bag is about 1/4 full. It is easier to do all of the stopping and starting required for the short joints when the bag is not full.
5. For consistent finish, pointing of whole elevations should be completed on the same day, if possible.



Applying mortar

IMPORTANT

Only point as large an area as can be tooled before the mortar becomes too stiff.



Tooling

Tooling the joints

Allow mortar to set until firm. It should have a dull finish, be moist but not wet and somewhat gritty. The mortar joint should be tooled to a "bucket handle finish" using a standard pointing tool. Where thicker slips (20mm+) are being pointed, recessed or weather struck mortar joint finish can be achieved using appropriate tools.

With a joint tool or 18mm piece of pipe begin striking or tooling the bed joints first, and then the vertical joints. All mortar joints must be tightly sealed to the brick edge.

When tooling you may discover holes or voids in the mortar. Fill the holes with the mortar droppings and retool.

CAUTION!

Do not tool the joint too soon or too deep. Tooling early will create a creamy surface on the mortar.

Brushing

After the joints have been tooled, the area must be brushed with a soft bristle brush.

Allow the area to dry until the excess mortar on the brick edges has dried. Brushing too soon will create permanent brush marks in the mortar.

Brushing should be done at a 45 degree angle to ensure that the mortar is not pulled away from the brick edges.



CAUTION!

Newly pointed brickwork should be protected from frost or inclement weather with hessian or similar covering.

Cleaning

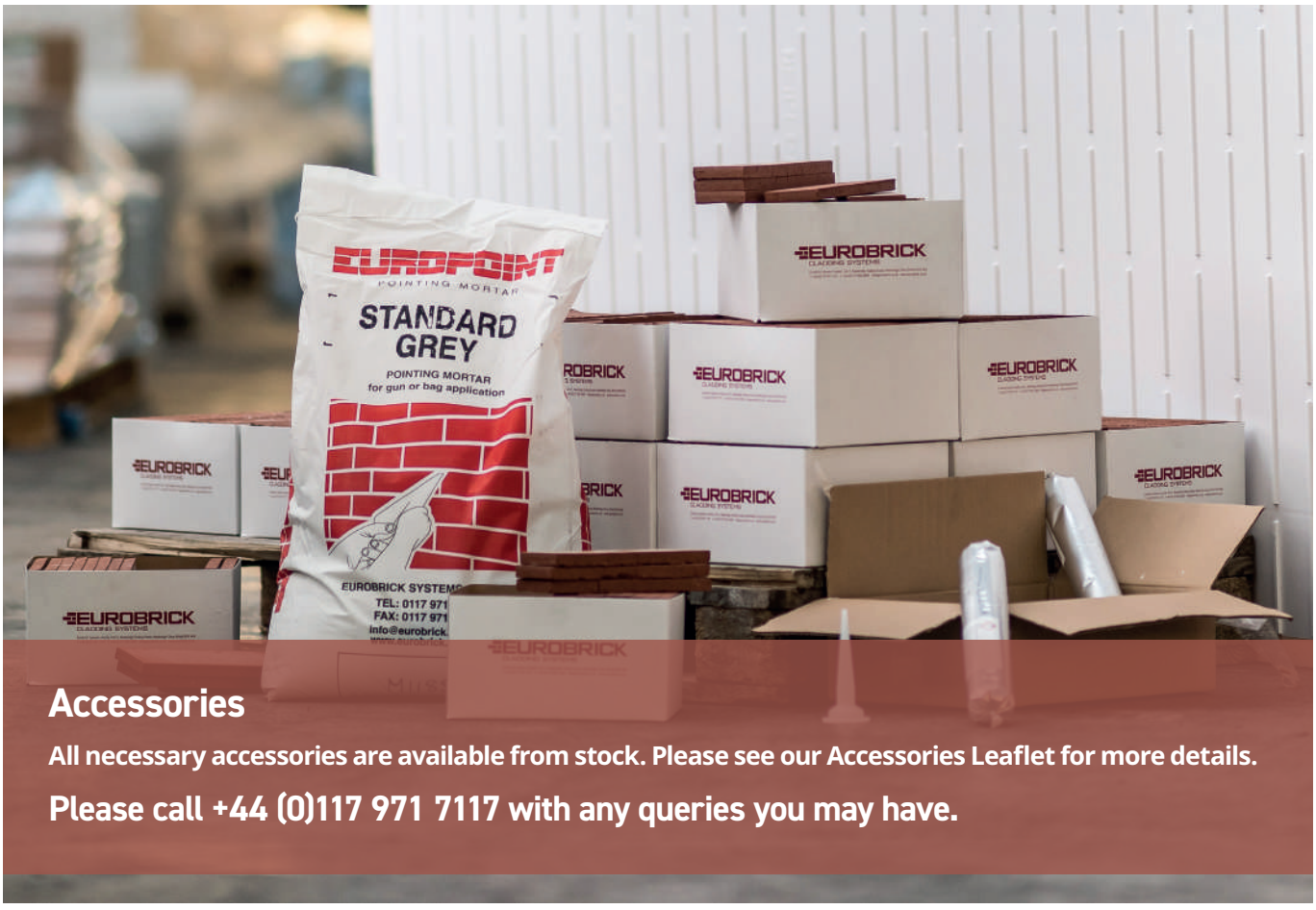
After job completion, it may be necessary to clean the brick. The initial clean should not take place sooner than 48 hours after pointing, using clean water and a hard bristle household brush. If further cleaning is required, use a proprietary brand masonry cleaner. Refer to the manufacturer's mixing instructions and precautionary steps before cleaning Eurobrick Systems.

IMPORTANT

Do not begin cleaning until mortar has properly cured. Allow a minimum of 48 hours.

Sealing

To ensure weather tightness, all joints and abutments should be properly sealed as described throughout the installation instructions.



Accessories

All necessary accessories are available from stock. Please see our Accessories Leaflet for more details.

Please call +44 (0)117 971 7117 with any queries you may have.



Visit our showroom

You can see all of our cladding systems and finishes at our showroom which is open to visitors Monday-Friday (excluding bank holidays) 9am - 4.30pm. An appointment is not necessary but if you would prefer to make one you can do so by calling us on 0117 971 7117.

Please note

Our brick slips are kiln fired natural clay products and while every effort is made to ensure consistency, variations in size, colour shade and texture can occur. This should not be viewed as a fault in production and should be taken into account at the design stage of the project.

Mortar colour variations can be expected due to the porosity of the brick, finishing techniques, mixing procedures and weather conditions (temperature, humidity and wind) at time of application.

ISO 9001 Certificate No. GB2003636 ISO 14001 Certificate No. EM2000881

EUROBRICK®

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Terms and conditions apply, please see our website for more details.

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