INSTALL GUIDE
RENDER CARRIER BOARD

EWIPRO®
External wall insulation system

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01. SURFACE PREPARATION

As with every other job, preparation is extremely important. Before applying any insulation to the substrate, it needs to be examined and checked.

The substrate must be clean, dry and dust-free. If applicable, it also needs to be cleaned of paint and other substance.

One of the best ways to achieve a clean and ready surface is to use a high-pressure water-jet or prepare the wall manually using a wire brush.

If any existing render is weak and comes away from the wall with minimal force, then we strongly recommend removing this prior to install.

02. VENTILATED CAVITIES & INSECT MESH

Prior to the application of any reinforcing basecoats, the correct beading must be installed. On a ventilated cavity system, the boards normally sit at 600mm or 400mm centres with an air gap of at least 25mm behind.

Any air cavity must be left uninhibited to allow for proper drainage, while at the same time safeguarded against any insect infestations. Install a ventilated bead or insect mesh between the spacing to reduce this risk.

03. INSTALLING RENDER CARRIER BOARDS

The render carrier boards should be attached to either wooden battens or a steel frame in a staggered formation using render carrier board screws. Each board should also have a 3 – 5mm gap between them and their neighbouring board.

Once the boards are attached to the timber/steel battens, it is time to mesh the joints. For this purpose, you can either use a breathable render carrier board joint tape or you can use our Fibreglass Mesh with tape. To do this, cut 200mm strips of our EWI-66640 Fibreglass Mesh, using an approved fibreglass mesh tape to hold these in place.

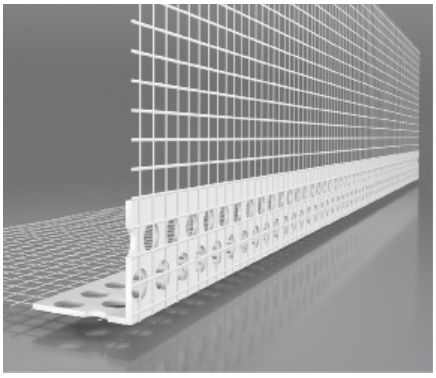
04. APPLYING THE BEADING

Beading is used in the EWI Pro thin coat render systems to reinforce areas that are likely to experience impact (e.g. external corners) and to try to direct water away from the surface of the render by providing a drip. All of our beading is uPVC and therefore will not rust. Cut beads to the required length and embed them into the basecoat layer.

You should install corner beads with mesh onto any external corners, including elevation corners and around windows and openings. To install the beading ensure that you use basecoat rather than any foam or grab adhesives. Simply mix EWI-225 Premium Basecoat with the appropriate quantity of water. Leave the adhesive for 5 minutes and then apply the product over the beading mesh to adhere it to the substrate. Repeat this process for all corners.

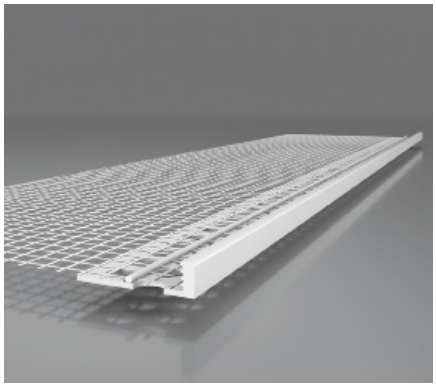
To minimise the use of mastics around windows and the final render finish you should use Window Reveal Beads. This will ensure 100% mechanical adhesion rather than depending upon silicone sealants which tend to wear away over time.

TYPES OF BEADING USED FOR RCBS



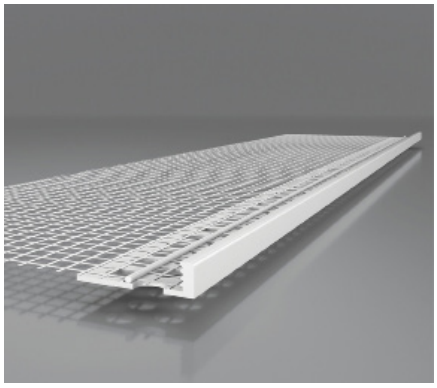
CORNER BEAD WITH MESH

Corner Bead should be used on every external corner to help reinforce this area. The corner bead also helps achieve a consistent 90 degree angle at the corner.



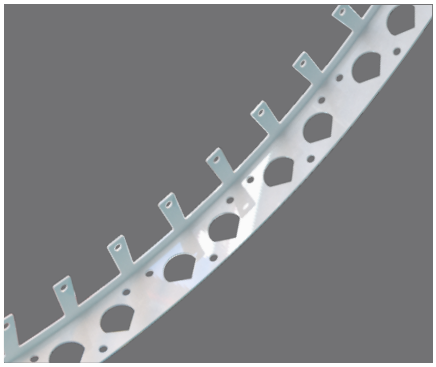
CORNER BEAD WITH DRIP & MESH

Corner Bead should be used on every external corner to help reinforce this area. The corner bead also a 3mm drip to prevents water ingress.



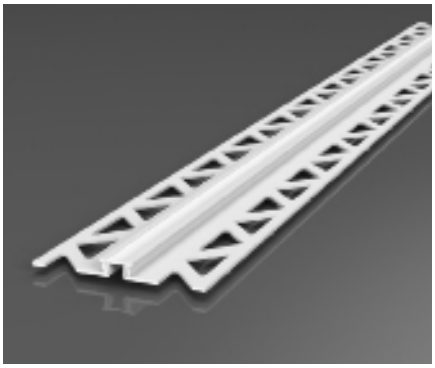
STOP BEAD

Stop Bead is used to achieve a defined termination point where the render comes to an end, for example between mid-terrace properties.



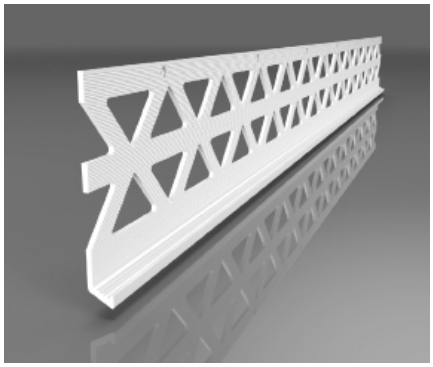
ARCH BEAD

Flexible uPVC Arch Bead is used to form perfect arches by matching the contours of the arch. The bead sits within the basecoat layer and provides sharp clean edges as well supporting the angles against accidental impacts.



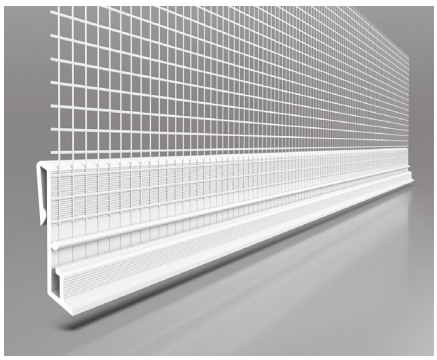
MOVEMENT BEAD

Movement Beads are installed within the basecoat directly above expansion joints within the masonry to achieve a neat and consistent enclosing detail. They can also be used where there is a particularly long run of render to try and help reduce the risk of cracking (typically every 7 linear metres of render a movement bead should be installed).



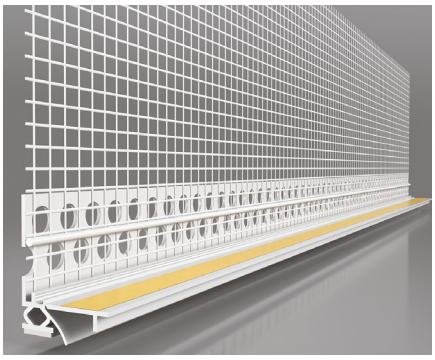
BELLCAST BEAD

Bellcast Beads are used to provide a drip at either the bottom of the render system or above openings to help mechanically drive water away from the surface of the render system.



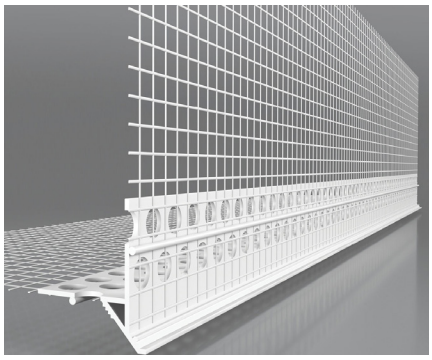
CLIP-ON PROFILE

The clip-on drip attaches to the front of the RCB tray and helps to tie the RCB tray into the render system. It also has a drip profile to help prevent water ingress at the base of the render system.



WINDOW REVEAL BEAD

The reveal bead is used around windows to provide a tidier finish. The bead is used on vertical reveals, as well as horizontal. The reveal bead has a removable tab to create a tidy finish.



WINDOW HEADER BEAD

The drip on this bead ensures that water will be directed onto the windowsill. The bead has two mesh wings, which are embedded into the basecoat layer.

05. PREPARING THE BASECOAT LAYER

Once the beading is in position, the basecoat reinforcement layer is installed (remember the beads are completely embedded within the basecoat so are not visible).

For this stage you need to use EWI-225 Premium Basecoat. The product is trowelled onto the substrate before strips of Fibreglass Mesh are embedded within it. Our Fibreglass Mesh is available in 50m2 rolls in either 165g/m2 (EWI-66645) or 150g/m2 (EWI-66640).

Correct preparation of the EWI-225 Premium Basecoat is very important. EWI-225 Premium Basecoat should be mixed with clean, potable water at a ratio of 6.5 litres per 25kg bag. The Premium Basecoat should be mixed using a heavy-duty power plaster mixer on a slow rotating setting.

Freshly mixed compound should be left for approximately 5 minutes and then re-mixed for a short period of time before use. Bucket life is approximately 1 hour, although this is dependent upon the weather conditions.

06. APPLYING THE BASECOAT LAYER

The basecoat can be applied as either a one pass or two pass application with Fibreglass Mesh embedded within it.

ONE PASS APPLICATION

The one pass system should be applied with a notched trowel to the substrate at a thickness of 6-8mm. The mesh is then embedded within the basecoat in vertical strips using the flat edge of a notched trowel. Each strip of Fibreglass Mesh should overlap its neighbouring strip by approximately 10- 15cm. The EWI-225 Premium Basecoat can be ruled off with a speed skim or sponge floated for a completely flat finish.

TWO PASS APPLICATION

The two-pass system should be applied with a notched trowel to the substrate - this layer needs to be between 3-4mm. The mesh is then placed onto the basecoat in vertical strips and embedded using the flat edge of a notched trowel. Another coat of basecoat should be applied onto the mesh at a thickness of 3-4mm before the first coat has gone off. The EWI-225 Premium Basecoat can be ruled off with a speed skim or sponge floated for a completely flat finish.

07. PRIMING BEFORE RENDERING

Once the basecoat reinforcement layer has dried for a period of 24-48 hours (depending upon the weather conditions), it needs to be primed prior to applying the render. The Topcoat Primer (EWI-333) is simply painted on top of the basecoat reinforcement layer using either a paintbrush or a roller.

It will need to be left to dry for 12-24 hours prior to rendering. The primer is also through-coloured with the same tint as the topcoat. This is to avoid staining on the topcoat and to ensure the final colour fully comes through on the rendering finish.

Materials Required:

EWI-333 Topcoat Primer

08. RENDERING THE WALLS

Each of these renders comes in different grain sizes – 1mm, 1.5mm, 2mm and 3mm.

Using a trowel, apply a thin layer of the render to primed surface. With granulated thin coat renders, remember to match the thickness of the render application to the grain size - so with a grain size of 1mm the render will need to be applied at a 1mm thickness.

Once the render has been applied, smooth it out using a trowel, removing any excess off the wall to ensure an extremely thin layer (one grain thick). Using a PVC float, work the render in circular movements - this will provide a textured finish. Remember to have enough tradesmen on-site to ensure that whole sections of the walls can be done at the same time. If you attempt to do 'half a wall' at a time, you will notice scarring where the two render sections meet.

If the render is tinted, then please check the bucket to ensure that it is the colour you are expecting (ideally compare this back to a sample pot). It is also recommended to mix 3 buckets of render into one large bucket at a time, topping up and re-mixing regularly. This will ensure consistency in colour and any minor discrepancies will be blended out across the façade.

Note: please do not water down the render.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