



Three-Coat Render Only System

Thin Coat Render (Masonry Only)

STEP 1

Substrate Preparation

As with any construction project, 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 substances which may affect the way the basecoat will perform. 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.

STEP 2

Priming the Wall before Rendering

Once the substrate has been cleaned and levelled, it then needs to be primed before any Levelling Adhesive can be applied.

For new build blockwork we recommend priming the substrate with EWI-302, which is a deep-penetrating water-based primer. It works in a similar manner to PVA primer, by helping seal porous surfaces prior to carrying out any works.

For existing painted surfaces, if the substrate requires increased adhesion, then we recommend using our EWI-310 Universal Primer. This contains silicate, which provides a mechanical key to aid adhesion of the basecoat adhesive.

The amount of priming and volume of primer required will depend on how absorptive the underlying substrate is, but typically this can be anywhere from 50-300ml per m².

The primers will take approximately 4 hours to dry. However, additional coats may be required depending upon how absorbent the substrate is. 24 hours should be left between primer coats.

MATERIALS REQUIRED

EWI-302 - Deep Penetrating Primer (5 litres)
EWI-310 - Universal Primer (20 litres)



STEP 3

Levelling and Parging the Substrate (EWI-269)

The three-coat system requires a levelling or parge coat prior to the application of the reinforcement layer. If the existing surface is very uneven, then a coat of EWI-269 Lightweight Basecoat should be applied to the uneven surface area to level it. Simply mix with clean, potable water at a ratio of 5L per 25kg bag. Lightweight Basecoat must be allowed to dry for at least 48 hours before any further work is carried out.

STEP 4

Applying Beading

Beading is used in our EWI Pro thin coat render systems to reinforce areas that are likely to experience impact (e.g. external corners) and also 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.

CORNER BEADS

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.

STOP BEADS

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

BELLCAST BEADS

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.

MOVEMENT BEADS

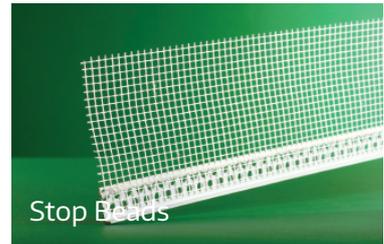
Movement Beads are installed within the basecoat directly above expansion joints within the masonry to achieve a neat and consistent enclosing detail. They can also be used where there is a particularly long run of render to try and help reduce the risk of cracking (typically every 7 linear metres of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

FLEXIBLE UPVC 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.



Corner Beads



Stop Beads



Bellcast Beads



Movement Beads



Flexible uPVC Arch Bead



FLEXIBLE CORNER BEAD

Flexible Corner Bead allows you to reinforce angles that are not 90°. The corner bead comes in long 25-metre strips, and when cut to size, helps provide the additional strength in areas that tend to encounter more knocks than average.

WINDOW REVEAL BEAD

The Reveal Bead is used around windows to help provide a tidier finish. The bead is used on vertical reveals, as well as the top reveal where the mesh is tied into the reveal using the basecoat adhesive. The mesh can also be cut depending upon the size of the reveal. The reveal bead has a removable tab, so once the final top coat has been applied, you can simply remove the tab, leaving a tidy finish. (Available in white or grey).

WINDOW HEADER BEAD

Prevents water travelling back along the reveal at the top of window frames. The drip on the bead ensures that water travelling vertically down the wall towards a window will be directed onto the window sill. The bead has two mesh wings, which are embedded into the basecoat layer – ensure that you install the bead in the correct orientation.



Flexible Corner Bead



Window Reveal Beads



Window Header Bead

STEP 5

Preparing the Basecoat Layer

Once the beading is in position, then 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 the EWI-225 Premium Basecoat.

Correct preparation of the EWI-225 Premium Basecoat is important. EWI-225 Premium Basecoat should be mixed with clean, potable water at a ratio of 6.5L per 25kg bag.

EWI-225 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.



STEP 6 Applying the Basecoat Layer

The Basecoat can be applied as either a one pass or two pass application.

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 on to 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.



STEP 7 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 Primer is simply painted on top of the basecoat reinforcement layer and should be selected based upon which type of render is going to be used. 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.

STEP 8

Rendering the Walls

Using a trowel, apply a thin layer of the render to the primer 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. 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. Note: please do not water down the render.

Mineral Render

Unlike our ready to use renders, mineral render comes as a white dry mix. The mineral render mix will need to be painted with a silicone paint to get your desired colour. Mineral render dries far quicker than liquid renders, therefore it is often used when installing in colder/humid climates. Mineral render requires 6.5 litres of water per 25kg bag. The compound should be mixed using a heavy-duty power plaster mixer on a slow rotating setting to produce a smooth, even white plaster prior to application. Leave for 24 hours drying time before the final topcoat should be painted with EWI-005 Nano Silicone Paint.



EWI Pro External Wall Insulation System

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