EWIPRO
External Wall Insulation Systems

INSTRUCTION MANUAL

EWI PRO MINERAL WOOL A1 SYSTEM ONTO SHEATHING BOARD

WWW.EWIPRO.COM

Safety Measures

Wear protective goggles, gloves, respiratory equipment and protective clothing when mixing and using this product. Avoid contact with the eyes. In the event of eye contact, wash the affected area with plenty of cold water as soon as possible and seek medical attention. Do not ingest. Keep out of reach of children. Refer to material safety sheet for further information regarding first aid and protection recommendations. Contact with wet cement may cause irritation, dermatitis or burns. For further details, refer to our Health & Safety Data Sheets.

Technical Data sheets:

https://ewipro.com/technical-documentation

Who are EWI PRO?

Since 2011, EWI Pro has been at the forefront of external wall insulation and rendering, delivering high-quality, reliable systems to homeowners across the UK. Our products are designed to enhance your home's energy performance while giving it a fresh, modern look.

40,000+
Properties Insulated

250,000+
Buckets of Render Sold

98%
Positive Feedback On Trustpilot

Our Commitment to Sustainability

Reflected in our people, processes and planet-focused initiatives. From our EPS recycling system, which cuts waste, to our eco-friendly lime render range, designed for sustainable construction and minimal environmental impact, we prioritise greener practices across all branches.

System Components

- Sheathing board types for metal frame & timber frame substrates.
- EWI-225 Premium Adhesive
- Mineral wool insulation
- Rawplug
- Kilmas
- EWI-225 Premium Basecoat
- Mesh
- Fire Fixings
- EWI-060 Mineral Render
- EWI-005 Silicone Paint

Substrate

Timber-frame properties are constructed using heavy-weight timbers, which are fitted together to form joints and create the overall building shape. This method is most prominent in cold climates.

Timber frame structures are built to be tightly sealed against water and moisture as part of a dry construction process. Once weather-tight, the timber needs to dry out before the walls are further constructed.

Insulation is necessary for timber-frame properties as they heat up and cool down quickly and are not naturally energy efficient. Modern timber frame houses are often constructed with wall boards backed with aluminium foil, although this is a difficult process for older properties. Insulation is also vital to these buildings because dampness and mould can be detrimental to their structural integrity.

Light steel frame properties follow a similar principle but use cold-formed galvanised steel sections instead of timber. They also rely on a dry construction process, offering speed and dimensional stability, with the added benefit of being resistant to rot and warping. However, because steel has high thermal conductivity, careful insulation and detailing are essential to minimise cold bridging and maintain energy efficiency.

Install Instructions

Fibre cement boards including STS brand are designed for both internal and external use, offering exceptional durability and performance. With an A1 Fire Rating and complete resistance to moisture, it's ideal for demanding environments. Common applications include boarding over timber floors prior to tiling, cavity closures, eaves boards, under canopies, and ceilings where fire resistance is required. Thanks to its water resistance, it's also perfectly suited for damp areas such as bathrooms and wet rooms.

Adhesive - EWI-225 Premium Basecoat

Product Preparation

EWI-225 Premium Basecoat comes as a 25kg dry mix. Pour the dry mixture into 6.5 litres of clean cool water and mix thoroughly with an electric paddle mix to produce a consistent texture. Leave for 5 minutes and then mix again – the product is now ready for application.

Application

When using EWI-225 as a bedding adhesive, applying the adhesive to the back of the insulation board using an appropriate trowel. For uneven substrates, we recommend applying the adhesive to the perimeter of the insulation board with 3 additional dabs across the middle of the board. For flat substrates, you can apply the adhesive to the entirety of the insulation board using a notched trowel. Allow the adhesive to dry completely before attempting to install the mechanical fixings.

After fixing the insulation boards to the substrate and leaving to dry for 3 days, use EWI-225 for the reinforcement basecoat layer. Apply to the insulation boards using a 10mm notched trowel, and before drying embed fibreglass mesh within the basecoat adhesive. Works must be protected from rain, snow, strong winds and direct sunlight.

The average drying time for the bedding adhesive is 12-48 hours depending on weather conditions. The drying period may be significantly longer in low temperature and high relative humidity.

Clean-up

All equipment must be washed with clean water immediately after use. Waste material should not be emptied into drainage systems.

Insulation & Fixings - Mineral Wool

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.

Starter Track Installation

Once the walls are primed, starter track needs to be installed. The starter track is attached to the substrate above the DPC. This not only provides a level surface for easy installation of the insulation, but it also protects the base of the insulation against weather, damp and other damage.

We offer either a uPVC starter track or an aluminium starter track. The uPVC starter track is our premium product and helps minimise thermal bridging. Aluminium starter requires a clip-on profile, which provides a layer of mesh that helps to tie the starter track together with the insulation when the reinforcement layer is added.

Both types of starter track are fixed to the substrate using rawl plugs, fixed at 300mm centres to ensure the starter track is held securely in place.

Applying Adhesive to Mineral Wool Insulation Boards

For this stage you need to use the EWI-225 Premium Basecoat which 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 (EWI66640).

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.

Once the starter track is in place, you will need to start fixing the Mineral Wool boards to the substrate.

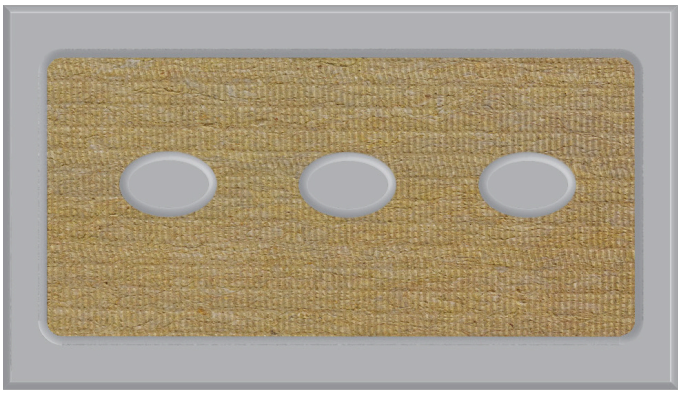
The Mineral Wool insulation boards are attached to the substrate with one of our adhesives. We always recommend using EWI-225 Premium Basecoat as the adhesive for attaching the Mineral Wool to the substrate as this is our strongest adhesive. It also means that only one type of adhesive is required on-site (EWI-225 is the adhesive also used in the reinforcement layer).

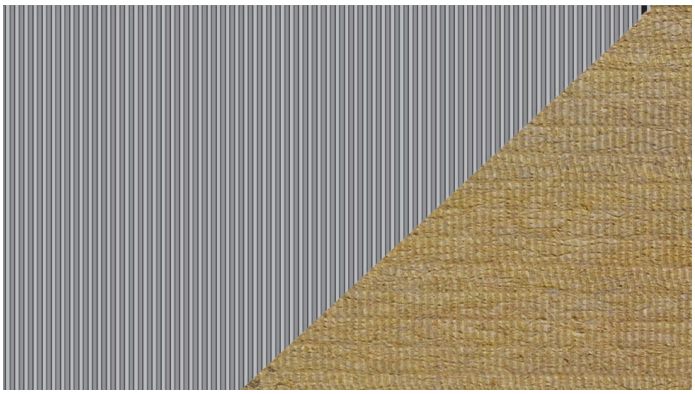
EWI-225 comes as a dry mix in 25kg bags and should be combined with clean water at a ratio of 6.5 litres per 25kg bag. To do this, use a heavyduty power plaster mixer on a slow rotating setting. Freshly mixed adhesive should be left for approximately 5-10 minutes and then re-mixed for a short period of time before use. Bucket life is approximately 1 hour, although this is dependent upon the weather conditions.

We recommend applying the adhesive onto the Mineral Wool insulation boards using a 'dot and dab' method. Using a trowel, apply the adhesive evenly around the edges of the board (3-4cm wide track) then dot and dab adhesive spots inside of this perimeter (approximately 3 of them). In general, the adhesive should cover no less than 40% of the surface of the insulation sheet.

It is also perfectly acceptable to use a notched trowel to apply a layer of the adhesive to the entirety of the Mineral Wool board. This method is better suited to completely flat walls.

The amount of adhesive used by either of these methods should be approximately the same. Each 25kg bag should be able to mount approximately 5m2 of boards to the substrate, although this does vary depending upon the quality of the surface on which the boards are being mounted (a flat wall will require less adhesive).





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, with 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.

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.

Render - EWI-060 Mineral Render

Product Preparation

Pour **EWI-060 Mineral Render** into water maintaining the proportion of 6.5 litres of water per 25kg of dry mix; then mix thoroughly with a mixer to produce a consistent texture. Leave for 5 minutes and then mix again before the product is ready for application.

Application

Apply the render using a stainless-steel trowel to the substrate surface. Apply the render continually to one surface before moving on to the next. The optimal thickness of the render is equal to the grain size and is achieved by removing any excess product from the substrate. Works must be protected from rain, snow, strong winds and direct sunlight. The average drying time for Mineral Render is 12 hours depending on weather conditions. The drying period may be significantly longer in low temperatures and high relative humidity.

Clean-up

All equipment must be washed with clean water immediately after use. Waste material should not be emptied into drainage systems.

Paint - EWI-005 Silicone Paint

Product Preparation

Check that the paint is the requested colour. Mix paint thoroughly in the container. When using more than one bucket of paint for the same surface, ensure that the batch numbers are matched.

Application

Apply using brushes, rollers or spray equipment. Paint one surface continuously before moving onto the next surface – do not allow any parts of the painted surface to dry out in the process to avoid visible lines.

Depending on weather conditions, the product should be applied after 3-7 days, and at the latest 21 days after rendering. In case of multi-layer render coats, the last layer must be 7 days old, although a single layer is usually sufficient.

Painting works must not be carried out during rain or snow, strong winds or direct sunlight without special shields to limit exposure to weather conditions.

Paint coat drying time is 2-3 hours at a temperature of +20°C and about 65% relative humidity. Subsequent paint coats can be applied after 12 hours. This period can be longer in low temperatures and high relative humidity, e.g. in autumn. If the paint is still wet, falling mist can have the same effects as drizzle and may cause water stains and colour changes.

Paints with intense vibrant colours (reflection coefficient Y < 20%) should not be used for large facades; the resulting temperature and UV radiation in these conditions may reduce paint coat durability and cause colour fading.

Clean-up

All equipment must be washed with clean water immediately after use. Waste material should not be emptied into drainage systems.

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