

Euromix® Renders on Rapidwall®

Euromix® Renders are acrylic modified cement renders formulated to provide weather resistant, decorative finishes over most building material substrates, including Rapidwall panels and blocks.

Manufactured using specially blended mineral fillers and additives, Euromix® Renders provide excellent crack resistance and a degree of flexibility that is not found in traditional renders.



Euromix® Render is a multipurpose render, suitable for use both as a base coat where finishing renders, texture coats, etc. or architectural finishes (like tiles) are to be applied and as a finish coat, where a high quality sponge finish is required. It can be applied by hand or by machine, in layers ranging from 2mm to 6mm at a time.

Euromix® Cream Render is often used as a base render coat. Cream Render formulation has higher polymer content than Euromix® Render and fewer 'fines' in the sand, making it suitable for application by machine and allowing a thicker build per coat (up to 10-12mm). Cream Render can be applied by hand also.

Euromix® Skim is designed for use as a top or finishing coat. The smaller sand grain used in Skim and high proportion of fines in the mix ensure that a quality flat or 'sponge' finish can be achieved. Skim should be applied by hand, in one layer, ranging from 2mm to 4mm thickness.

This document provides general guidelines for the application of Euromix® Renders and Proyalbi Plasters over Rapidwall walling elements. Intending purchasers and users should also refer to the Rapidwall® recommendations for the application of render over this substrate.

1. Preferred Level of Finish

The guidelines summarised in the following pages offer a number of approaches for achieving a render finish.

The Euromix preferred finish is characterised as one where:

- Substrate surface imperfections have been patched.
- A base coat of render is applied to a nominal thickness of ~ 3mm, with some make-good of variations in level / alignment of substrate, as allowed by the thickness of render being applied.
- A finish coat of render is applied to a nominal thickness of ~ 4mm and finished ready for a textured decorative finish (1-1.5mm thickness) or paint.

Such a finish will hide most surface imperfections. Minor structural imperfections, misalignment of walls, etc, will be hidden and major imperfections will be reduced, depending on their severity. This is the minimum finish recommended most panel wall systems.

2. General Information

Euromix® Renders are designed for use as a decorative finishes, they are not meant to be used in 'engineered' applications (where special strength, movement, hardness or other performance characteristics are required). Euroset recommends that Euromix® Renders be applied by skilled tradespeople who are experienced in rendering. Euroset accepts no responsibility for problems arising from faulty workmanship.

3. Rapidwall® Substrate Preparation

Ensure that all elements to be coated have been constructed and fixed in accordance with the project plans / specifications and the Rapidwall manufacturer's recommendations - some items for consideration include:

- Where the panels have been filled with concrete ensure that concrete strength and moisture content are within the manufacturer's guidelines before commencing any coating. All migration of moisture through the panel to the surface must have ceased before commencement of coating.
- Walls should be straight, flat and plumb - all block/panel joints should be structurally sound with face surface levels on each side of the join aligned.
- Internal and external corners should be 'true' and well constructed (unlikely to move or otherwise come apart).
- Identify any surface irregularities in the substrate surface and agree the method and extent of any 'make good' with the project manager.
- Identify any areas of substrate that are affected by dust, loose / friable material or adhesion inhibiting materials – remove or otherwise 'make-good' contaminated areas.
- Locate expansion joints and control joints and agree coating treatment for these with the Project Manager.
- Locate any damp courses; these cannot be bridged by the render finish. Ensure the treatment of these is agreed with the project manager.
- Identify areas where walls are not straight or where joins between floors are not flush – obtain agreement from project manager on treatment of such areas.
- Mask windows, doors, roofing, flooring and other elements to protect them and to reduce clean up time.

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4. Sealer Primer Coat

Before applying any Euromix® finish, the surface of the Rapidwall blocks/panels must be coated with Euromix® Sealer/Primer (a solvent based binding primer), taking particular care to ensure that horizontal surfaces that may attract 'pooling' of moisture, such as parapet tops, sills, etc, are fully primed. As Sealer/Primer is a clear liquid it may be helpful to slightly tint the product to make it easier to observe that a complete cover has been achieved.

Allow twelve (12) hours for the Sealer/Primer to dry before applying any following finishes.

5. Repair Work

Once the external surface of the Rapidwall has been coated with the Sealer/Primer any surface imperfections can be repaired or made good using the agreed materials. Repaired areas should be re coated with Euromix® Sealer/Primer once they have dried. This application of Sealer/Primer is particularly important where paint or texture coat is to be applied directly over the Rapidwall surface (this is to ensure that the surface of the Rapidwall panel is of even porosity).

6. Corners & Trims

Once the external surface of the Rapidwall has been coated with the Sealer/Primer and any surface imperfections have been repaired, preformed corners and other trims can be fixed in position.

Apply Euromix® Patch Coarse onto the Rapidwall substrate surface then fix the required PVC Trims into position, ensuring that they are plumb and aligned with the appropriate wall surface. Once the Trims have been embedded in the Patch Coarse, apply a skim coat of Patch Coarse to finish off flush with the surface of the Rapidwall surface.

For internal corners lay Patch Coarse into the corner and then bed 55mm or 100mm wide alkali resistant fibreglass mesh tape into the corner. Once the fibreglass internal corners have been embedded in the Patch Coarse, apply a skim coat of Patch Coarse to finish off flush with the surface of the Rapidwall.

Work on starter trims, reveals, sills, joints and corners progressively to ensure that the Patch Coarse bedding coat does not set before the skim coat of Patch Coarse is applied.

Make sure that any excess compound is removed from all edges, while the material is still wet - Euromix® Patch Coarse cannot be sanded after setting. Allow at least twenty four (24) hours curing time for Patch Coarse before applying any render or other coating. Note: cold and / or damp weather conditions may extend the curing time, for the Patch Coarse past the normal twenty four (24) hours.

7. Polymer Render Finish

After priming and preparing the Rapidwall as described in Section 4 & 5, above, the external surfaces can be rendered with Euromix® Patch Coarse (a multipurpose Polymer Render), as follows;

7.1 Polymer Render Coat

Apply one (1) or two (2) coats (@ 1mm thickness each) of Euromix® Patch Coarse evenly over the surface of the Rapidwall substrate. The number of coats will be determined by the quality of finish desired and the extent of any surface repair required.

Follow the recommendations for the application of the Patch, as detailed in the Euromix® Patch Coarse PDS (Product Data Sheet). The Patch should be mixed with 5-10% cement to assist curing and increase weather resistance.

Allow minimum twenty four (24) hours drying time for each coat of the Patch.

The final coat of Euromix® Patch Coarse Polymer Render should be finished with a plastic trowel to achieve a flat, consistent finish (in a similar fashion to the treatment of most texture coatings).

7.2 Paint Finish

Apply the chosen paint in accordance the manufacturer's recommendations, ensuring that the Euromix® Patch has cured adequately before commencing any coating.

8. Acrylic Render Finish

After priming and preparing the Rapidwall as described in Section 4 & 5, above, the external surfaces can be rendered with Euromix® Render as follows;

8.1 Mixing the Render

Euromix® Renders should be mixed with a water plus bonding agent (Euromix® Bond) solution by mechanical mixer or with a traditional concrete mixer. The required amount of water plus Euromix® Bond solution should be prepared in a bucket and then steadily added to the Euromix® Render powder until it is smooth and lump free (this mixture should hold a stiff peak on a hawk). If the mix is either too 'stiff' or too 'wet' it will be difficult to apply and finish – it is also likely that finished strengths will be low. Do not prepare more render than can be used within one (1) hour.

In normal conditions approximately 4 litres of 'gauge' is required for 1 bag (20 Kg) of Euromix® Render. For the first coat of render a Bond:water ratio of 1:4 is used – 1 part Bond to 4 parts water. For subsequent coats the ratio is 1:19.

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8.2. The First / Base Render Coat

Apply a first coat of Euromix® Render (mixed with a solution of 1 part Euromix® Bond to 4 parts water) to a minimum thickness of approximately 2mm using a hawk and trowel.

Make sure all necessary expansion or other control joints are put in place. The renderer should make certain he has the correct instructions from the builder, architect or engineer etc. as regards to the type and placement of these joints. Expansion joints must extend through the rendered surface into the expansion joint provided by the builder on the substrate (do not merely score the surface over an expansion joint when cutting them in after rendering).

Spillage and partially set material should not be re-tempered with water and should be discarded. Tools and equipment should be cleaned with water immediately after use.

8.3 The Second / Finishing Render Coat

Once the first (base) coat of render has dried (at least 24 hours in normal conditions) prepare Euromix® Render or Skim with a 'gauge' of 1 part Bond to 19 parts water and then apply this to the required thickness (between 2 to 4mm). Then, using a trowel and a straight edge, level the render to achieve a true and flat finish. The render can then be floated with a polystyrene, wood or plastic float, to make it ready for a troweled on texture coating.

Alternatively this coat of Skim or Render can be sponge finished after floating and made ready for the application of a suitable paint system.

8.4 Rendering Parapet Wall Horizontal Surfaces

It is advisable to prepare horizontal surfaces in the following manner:

- Coat the horizontal face with a 'bedding coat' (1 to 2mm thickness) of Euromix® Render, mixed with a 1:4 'gauge' (1 part Euromix® Bond to 4 parts water).
- After the surface has been covered with the bedding coat and while it is still wet, trowel in alkali resistant fibreglass mesh, ensuring that it is covered completely by the Euromix® Render.
- After this first coat of Euromix® Render has cured apply the following coats of Render and / or Skim (to achieve the specified / desired thickness and finish) in accordance with the guidelines above (Section 3.3), ensuring that a slight, uniform slope is achieved to negate 'ponding' of moisture on the surface. This slope normally runs to the internal side of the building element and / or gutter.

8.5 Curing of Render

Ensure adequate protection from the drying effects of direct sunlight, wind and low humidity or a combination of these elements. Rapid drying of the surface can cause cracking and result in a low strength / friable render. Do not apply Euromix Renders when conditions will be above 35°C, especially if windy, nor where the temperature is below 5°C or where the chill factor is high.

Ensure that the curing render is protected from rain, extreme frosts and other sources of excess moisture (e.g.; overflowing gutters and downpipes).

9. Typical Drying Times

The times quoted below are for normal weather conditions, at 25°C and 50% Relative Humidity.

Surface dry	Four (4) hours.
Recoat with Render	One (1) day.
Texture Coating	Three (3) days.
Paint	Three (3) days for acrylic paints. Twenty-one (21) days for oil / alkyd based paints.

10. Texture Coating

Apply the chosen Euromix® Texture evenly with a trowel. It is recommended that the product be thoroughly stirred using a power stirrer prior to application. Do not apply if rain or frost is imminent or possible before the product has properly dried. The product should not be subjected to hydrostatic pressure and excessive rising damp.

Follow the recommendations for the use of the chosen Euromix® Texture, as detailed in the relevant Guides.

11. Structural / Building Material Cracking

Movement of building elements in buildings is commonplace (causes include foundation settlement, seismic displacement and the behaviour of materials in relation to changes in temperature or moisture content). These movements usually result in visible cracking of the building claddings / linings (as well as other potentially more damaging modes of failure).

Sound building design and construction methods recognise the likelihood of structural and material movements and allow for them to be managed through the placement of control joints (often called expansion joints) and the use of design features that hide or may even highlight these control joints or the areas where cracking is likely to occur.

Any building movement that results in visible cracking of the building claddings / linings will also be sufficient to cause cracking of the decorative finish – this is the case for both potential new and pre-existing building movement cracking.

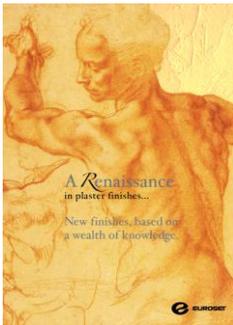
Euromix® systems will not hide cracking caused by structural movement and / or shrinkage / expansion of substrates caused by temperature and moisture associated movement.

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12. Plaster Finish (Internal Facing Walls)

Euromix® Renders and other coatings are highly compatible with various plaster finishes that are suitable for use on internal Rapidwall surfaces.

The system that we recommend is the **Proyalbi** Plaster System - distributed by **Euroset Trading Pty Ltd**. Euroset Trading are based in Sydney and can be contacted on +612 9572 9061 and admin@euroset.com.au.



It is recommended that Euroset Trading be approached for specific information regarding the application of Proyalbi over Rapidwall. We summarise the approach as follows;

12.1 Proyalbi Plus & Fino

A white set plaster finish can be achieved with the use of **Proyalbi® Plus** or **Proyalbi® Fino**. Intending users of Proyalbi® should have read the relevant Product Data Sheets before commencing any work with the material.

Walls should be repaired, where necessary, using the approaches summarised earlier in this Guide in Section 4 & 5.

12.2 Plastering

Ensure that the Rapidwall internal surface to be plastered is free of any contaminants that may inhibit adhesion of the Proyalbi® finish. Apply a first coat of Proyalbi® Plus or Fino Plus mixed with a 'gauge' of 1 part Euromix® Bond to 15 parts water. After this first coat has dried (allow 24 (twenty four) hours) subsequent coats can be mixed with water only and applied to achieve the level of finish required.

12.3 Prime before Painting

Before applying any Euromix® (or any other brand) paint finish the surfaces of the plastered Rapidwall they must be coated with Euromix® Sealer/Primer (a solvent based binding primer), taking particular care to ensure that horizontal surfaces that may attract 'pooling' of moisture, such as parapet tops, sills, etc, are fully primed.

As Sealer/Primer is a clear liquid it may be helpful to slightly tint the product to make it easier to observe that a complete cover has been achieved.

Allow twelve (12) hours for the Sealer/Primer to dry before applying any following finishes.

13. Health and Safety

Precautions

Keep exposure to dust as low as practicable, to minimize health problems such as skin, eye and respiratory irritation. Avoid repeated skin contact with both the dry powder and the wet mixture.

If preparation of the substrate requires cutting or grinding of masonry then ensure that goggles and respirators are available and that they are worn. It is also recommended that suitable hearing protection be worn when cutting or grinding.

Health Effects

Refer to the current MSDS for the material – available through Euroset Trading Pty Ltd.

14. Limitations and Special Precautions

Special Use

Euromix® Render is designed for use as a decorative render finish. Where special performance outcomes are required of the render, like high inter-laminar bond strength to cope with exceptional surface loadings or possible structural movement, it is critical that the potential use be discussed with Euroset prior to application.

'Build up' Elements

When used for design element 'build up' it is important that each coat be allowed to thoroughly dry before the next coat is applied.

Control Joints

Cracking in rendered walls and other substrates that is a result of structural movement, cannot be prevented by using renders. Faulty or improper construction can lead to substrate cracking and fracturing and in turn can crack the render.

Control joints should be formed between every level and between different substrates to allow for building movements and minimize potential cracking.

The information contained in this guide is typical and does not constitute a full specification, as conditions and specific requirements will vary from project to project. All purchasers and intending users of the products covered in this document must, prior to use, assess and control the risks arising from use of the products, as they relate to their project.