

Euromix® Renders on AFS (Level 3 Finish)

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

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 over AFS Walling. Users should also refer to AFS manufacturer/supplier's recommendations for the application of render over their substrate.

1. Level 3 Finish

The guidelines summarised in the following pages are for a Level 3 Finish, 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 finish, 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 trades people who are experienced in rendering. Euroset accepts no responsibility for problems arising from faulty workmanship.

3. AFS Substrate Preparation

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

- The concrete strength and moisture content of the finished AFS panel must be within the manufacturer's guidelines.
- Walls should be straight, flat and plumb - all 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 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' these contaminants.
- Locate expansion joints and control joints and agree the rendering 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. AFS Panel Corner and Joint Preparation

Panel joins and where specified, PVC external corners, must be finished in a similar fashion to that used for the joins and corners of FC Blue Board, using Euromix® Patch.

- Evenly fill the AFS panel recess joints using Euromix® Patch Coarse, mixed with @ 10% cement.
- Lay 55mm wide alkali resistant fibreglass (FG) mesh tape into the rebated joins; making certain that there is adequate Patch Coarse material below as well as above the mesh. Note: Do not use self-adhesive fibreglass tapes with Euromix® renders and patching compounds.
- Once the FG mesh tape has been embedded apply a skim coat of Patch Coarse to finish off flush with the surface of the AFS panel.
- Lay Patch Coarse into external corner recesses and fix PVC / FG mesh corners, ensuring that they are plumb (positive fasteners may be required).
- Once the external corners have been embedded apply a skim coat of Patch Coarse to finish off flush with the surface of the AFS panel.
- Lay Patch Coarse into internal corners and bed 55mm or 100mm wide alkali resistant FG mesh tape into the corner.
- Once the FG internal corners have been embedded apply a skim coat of Patch Coarse to finish off flush with the surface of the AFS panel.
- Work on joints and corners progressively, ensuring that the Patch bedding does not set before the skim coat of Patch is applied.
- Apply a skim coat of Patch Coarse over all fixings, ensuring a smooth finish.
- Ensure that excess compound is removed from all edges while material is still wet. Note: Euromix® Patch Coarse cannot be sanded after setting.
- Allow at least 24hrs-curing time for the Patch Coarse joints (fixings where coated) before applying any other coating. Note: cold and / or damp weather conditions may extend the curing time for the Patch Coarse beyond the normal 24hrs.

The AFS panel should now be ready for the application of the Euromix® Render.

5. Mixing Render

Euromix Renders should be prepared with a mixture of Euromix Bond and water, using a suitable drill or traditional concrete mixer. The required amount of Euromix Bond and clean, mains supply, water should be prepared in a mixing bucket and then steadily added to the Render powder until it is smooth and lump free.

In normal use approximately 4 litres of Bond / water mix is required for 1 bag (20 Kg) of Euromix Render. The Euromix Bond / water ratio for the first coat over AFS is 1:4 (1 Part Bond to 4 Parts Water).

6. The First / Base Render Coat

Apply a 'tight' coat of Euromix® Render, mixed with a Gauge of 1 part Euromix® Bond to 4 parts water, over all surfaces to a minimum thickness of ~2mm with hawk & trowel. Allow the render to stabilise before leveling with a straight edge to a uniform flat finish.

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.

7. The Second / Finishing Render Coat

Mixed with a Gauge of 1 part Euromix® Bond to 18 parts water, apply Euromix® Render to a thickness of ~4-6mm, using a trowel and straight edge to achieve true and level finish.

It is important that adequate coverage of at least 6mm (total thickness including base coat) is achieved over joins and any areas of make-good.

When this coat has firmed sufficiently it can be floated with a polyurethane, polystyrene or wooden float to flatten and smooth the surface ready for the decorative texture coating or paint.

Alternatively the render can be sponge finished after floating and made ready for the application of a suitable paint system.

It is possible that some shrinkage of the applied product may occur in situations where the thickness applied varies, due to the variations in the substrate level or where significant chasing has occurred. Here it is recommended that the first coat of Euromix® Render be screeded and left for sufficient time for the shrinkage to occur before applying a second coat of Euromix® Render.

8. Curing

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 down pipes).

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.

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10. Parapet, Fence, Pier (& other) Horizontal Surfaces

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

- Coat the horizontal face with a 'bedding coat' (1-2mm thickness) of Euromix® Render, mixed with a 1: 4 gauge (1 part Euromix® Bond: 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 (to achieve the specified / desired thickness and finish) in accordance with the guidelines above, 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.

11. Euroset Finishes and Structural / Building Material Cracking

Movement of building elements in buildings is commonplace (causes include foundation settlement, seismic displacement and the behavior 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.

12. 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.

13. 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' element 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.