

# Euromix® Renders on AAC

*Euromix® Renders are acrylic modified cement renders formulated to provide weather resistant, decorative finishes over most building material substrates, including autoclaved aerated concrete (AAC).*

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

## 1. Level of Finish

The guidelines summarised in the following pages are for a render finish 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. AAC Substrate Preparation

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

- The moisture content of the AAC substrate must be within the manufacturer's guidelines – do not begin the application of Euromix® Render if the moisture content is above the recommended limit or where moisture will migrate through the substrate to the render surface.
- Walls should be straight, flat and plumb - all joints should be structurally sound with face surface levels on each side of the join aligned.
- Internal and external corners should be constructed such that they are unlikely to move.
- Identify any surface irregularities and agree the method / extent of '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 rendering treatment for these with the project manager.
- Locate damp courses – these cannot be bridged by the render finish.
- Identify areas where walls are not straight or where joints between floors are not flush – obtain agreement from project manager on treatment of such areas.
- Follow the AAC manufacturer's recommendation for curing times of the adhesive used for the joining of panels / blocks before applying render.
- Mask windows, doors, roofing, flooring and other elements to protect them and to reduce clean up time.

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## 4. AAC Panel Corner and Joint Preparation

Where specified, fix PVC external corners to the AAC using Euromix® Patch, ensuring that they are finished plumb. Allow 24 hours curing of the Patch before application of Euromix® Render.

While it is not necessary to apply reinforcing mesh over panel / block joins most AAC manufacturers recommend the use of woven fibreglass, expanded stainless or galvanised steel mesh in areas such as:

- Ends of lintels over doors and windows, where a fixed end is detailed;
- Across the sill of windows;
- Across the chases in the wall for services;
- Around external corners at the top of the wall;
- Across joints on the underside of floor, wall and ceiling panels.

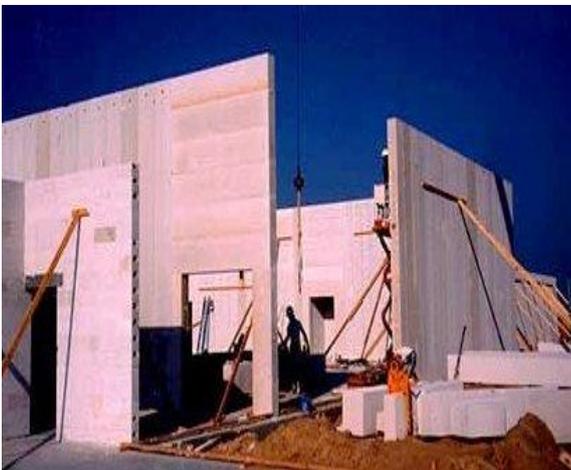
Follow the AAC manufacturer's recommendations for the application of mesh in these circumstances. Generally the required mesh should be bedded into a thin layer of render (1-2mm thick) prior to the application of render over the total surface – this can be completed as part of the base rendering process (see 6.6).

The AAC 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 AAC is 1:9 (1 Part Bond to 9 Parts Water).



## 6. The First / Base Render Coat

Apply a 'tight' coat of Euromix® Render, mixed with a Gauge of 1: 9, over all surfaces to a minimum thickness of ~2mm with hawk & trowel. Allow the render to stabilize 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: 19, 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: 9 gauge (1 part Euromix® Bond: 9 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.***