

COATING SYSTEM SPECIFICATION: MCS-015-25/03

BALBOARD

Render & Acrylic Texture

System Overview

Balboard is an external lightweight, reinforced, insulating wall panel, mechanically fixed to the outer face of the building. The panels are completed by the application of an approved polymer render, trims, sealants, opening flashings and decorative and waterproof coatings.

Traditional sand/cement render is not suitable on the Balboard system. Balboard panels are comprised of a high performance CFC/HCFC free rigid polyisocyanurate (PIR) foam. The facing of the panel is reinforced with a fibreglass tissue and is compatible with approved polymer render and decorative finishes.

PIR systems, completed with a polymer render finish, have a 25+ year history in Europe and the USA.

Materials Required

- > Balboard base sheets installed as per manufacturers installation guide.
- > Approved self-adhesive flashing tape for weatherproofing window and door openings.
- > Polyurethane sealant.
- > Aluminium starter channels for providing a neat and durable lower edge.
- > Macprime HP for priming of Balboard surface prior to application of initial render coat and for application to the finished render prior to texture coating or painting.
- > Alkali-resistant fibreglass mesh 165 gsm for inclusion in the first coat of render in 50 x 1.2 m rolls.
- > Alkali-resistant fibreglass mesh 165 gsm for diagonal reinforcing strips 600 x 200 mm to be placed at penetration (windows/doors) openings.
- > Fibreglass/aluminium angles for application to external corners.
- > Macrender® HBS, used for both 1st and 2nd render coats.
- > Mactexture decorative textured finish coat in selected grade and colour (optional in 7 year system).
- > MAC Satin membrane for protective, low maintenance finish coat (required for 7 year system).

Installation of Balboard

Install Balboard panels in strict accordance with manufacturer's technical documentation. Further information available at www.balboard.com.au

Control & Movement Joints

- > **The following information is a guide only. Refer to Balboard installation manual prior to installation of Balboard panels.**
- > Control joints for expansion should coincide with control joints within the building structure and substrate, and should be placed at all perceived stress points or weak areas of excessive movement within the building structure. Control joints should be placed in walls over 20 meters long and at all mid-floor breaks. It is recommended that panel areas below windows less than 300 mm in height should be relieved with 'Articulation Relief Joints' of the render coating, at the corners of the opening.
- > Articulation relief joints of the render coating are to be formed by cutting or forming a 'V' groove into the completed base coats, only to 70% depth of the render, not into the Balboard panel. The applied top coats shall replicate the 'V' groove to leave a visible line.
- > Where control joints are part of the building construction, the joint is to be expressed in the Balboard panels as an open joint, free of construction urethane, and finished as for all other open edges (including external angles applied to each edge).
- > Panel to panel control joints should be located on double studs, which are then to be sealed with flashing tape, which is then sealed to the rear of each panel with the use of a liquid (not foam) polyurethane sealant.
- > All control joints should feature either Ableflex (or similar) or backer rod as the primary seal, which should be set back in the control joint a minimum of 8mm where it must be caulked by others after the render process has been completed. – See Construction Details Manual. All Control Joints should be free of render products and should not be bridged by the coating system.
- > Refer to Balboard Technical Manual for current control joint design details and drawings.

Table 1.1 Coating Application Schedule - In Order of Application

PRODUCT	NOTES	SPREAD RATE	WARRANTY
<i>Macprime HP</i>	<i>To fortify FG tissue on Balboard surface and reduce suction.</i>	<i>Approx. 6 m² / litre</i>	<i>1 coat. No thinning allowed. Allow to thoroughly dry prior to application of render.</i>
<i>Macrender® HBS</i>	<i>Provides adhesion to Balboard panels and encases reinforcing mesh. This coat provides the key strength of the coating system.</i>	<i>3-4 mm</i>	<i>Includes embedded FG mesh, external angles and all diagonal reinforcing strips.</i>
<i>Macrender® HBS</i>	<i>Provides added thickness and strength to coating system whilst providing the appropriate surface finish for subsequent coats in the system.</i>	<i>3-4 mm. Total thickness for both render coats 6 mm (min) in total.</i>	<i>No reinforcing in this coat. Finish quality to be appropriate for selected system from this point on.</i>
<i>Macprime or Macprime HP</i>	<i>To provide a sound base and alkalinity barrier for application of texture/paint finish.</i>	<i>Approx. 6 m² / litre</i>	<i>1 coat. No thinning allowed. Allow to thoroughly dry prior to application of render.</i>
<i>Mactexture acrylic textured finish</i>	<i>Provides a decorative textured finish and added durability of the coating system.</i>	<i>Varies greatly depending on selected textured finish. See product specific data for further information.</i>	<i>1 coat. Optional if painted render finish required.</i>
<i>Satin acrylic membrane</i>	<i>Resists moisture ingress, dirt pick-up. Also provides limited crack-bridging ability.</i>	<i>Approx. 3.5 m² / litre.</i>	<i>2 coats. Selected colour must have an LRV of greater than 45%.</i>

Prior to Rendering

Weather-proofing

Prior to the application of the panel, all openings must be flashed from the reveal to the frame. This is now a Building Code requirement. MAC recommends and supplies flashing tape for just this purpose, and is suitable for both aluminium and timber windows. This proven flashing method reduces the risk of water penetration. In turn, the panels are then to be sealed with urethane (liquid, not foam) to the face of the flashing tape to form a gasket seal around the opening.

Note: Balboard panels should not be externally sealed to window/door reveals prior to render application. Sealants should never be rendered over, as render systems, with limited movement capabilities, will restrict a sealant's ability to move according to manufacturer's specification. Sealants for openings should be applied after the render system has been applied - never before!

Base preparation & priming

- > Ensure Balboard panels are clean and free from any impurities which may adversely effect adhesion of the render system. Remove any loose, chalky or flakey material by brushing as required.
- > Apply a single coat of Macprime HP to the bare Balboard base sheets using lambswool roller cover, ensuring full coverage has been attained. Full wetting of the FG tissue is essential for adequate bonding of the first render coat. Priming of base panels is required to provide a sound bond between the fibreglass tissue outer layer and subsequent render coats.

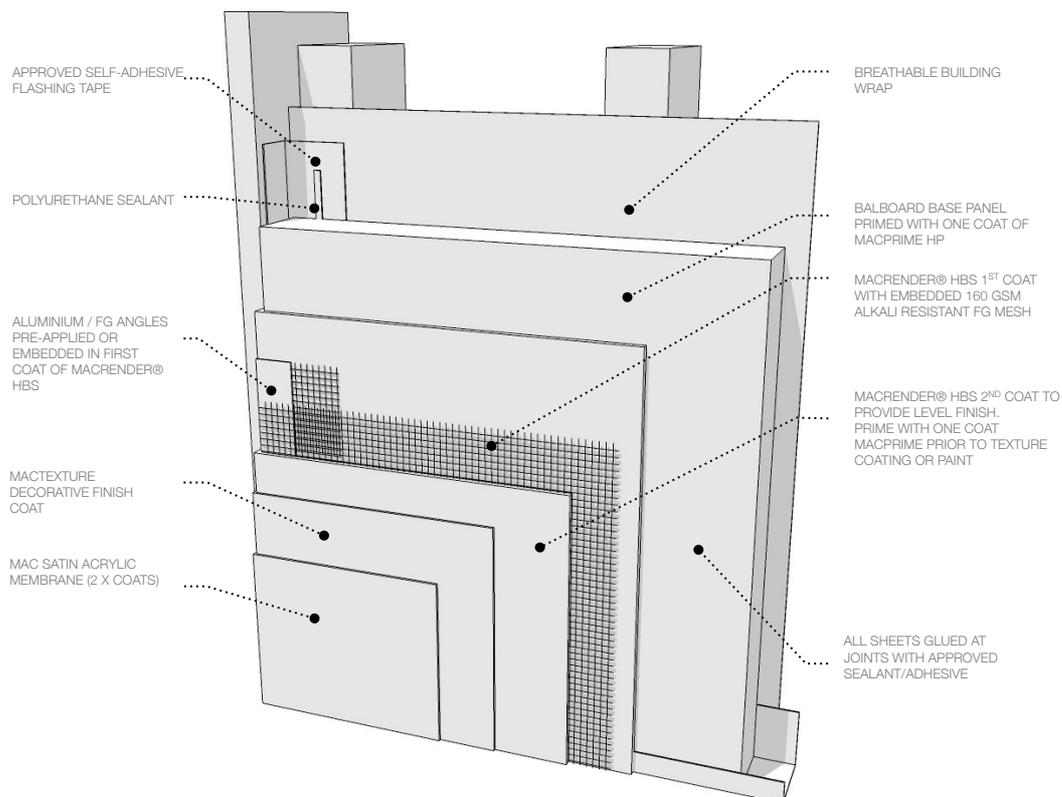
- Allow to dry prior to application of render. When thoroughly dry, Macprime HP will not be tacky and will have lost its milky white appearance.

Application of the Render & Coating System

Render Coat Application: First Coat with FG Reinforcing Mesh & External Angles

- Apply Macrender® HBS to the dry, primed Balboard base panels at a thickness specified in the coating schedule (Table 1.1)
- Embed fibreglass reinforcing mesh into the wet render and trowel over to fully encase mesh. Overlap fibreglass mesh a minimum of 100 mm at mesh junctures. FG reinforcing mesh should never be adhered directly to the Balboard panel surface. It must always be embedded as an integral part of the initial render coat.
- External angles (aluminium/FG mesh or FG only) shall be embedded into wet render during first coat. Alternatively, external angles may be rendered onto corners and allowed to dry prior to application of first coat of render. Reinforcing mesh in first render coat must overlap external angle and continue to within 10 mm of the corner. See Figure 1.2 for details. Do not glue or pin angles directly to the base panels as this may result in entrapped air pockets and an unstable finished corner.
- All window and door openings etc. must have FG reinforcing bandages embedded diagonally at each corner to improve strength in stress points. See Figure 1.3 for details.

Figure 1.2 System Overview



Render Coat Application: Second & Final Render Coat

- Apply a second coat of Macrender® HBS, ensuring a total render thickness of 6 mm has been achieved for two coats in total. A wet-on-green application is recommended when applying the second coat over the first coat of render. A wet-on-dry application however is also acceptable.

- > Float to an even and true finish, ready to accept either an acrylic textured finish or paint (whichever has been selected).
- > Allow rendered surface to cure for a minimum of 4 days prior to overcoating.
- > Apply a single coat of Macprime HP and allow to dry prior to application of textured finish or paint.

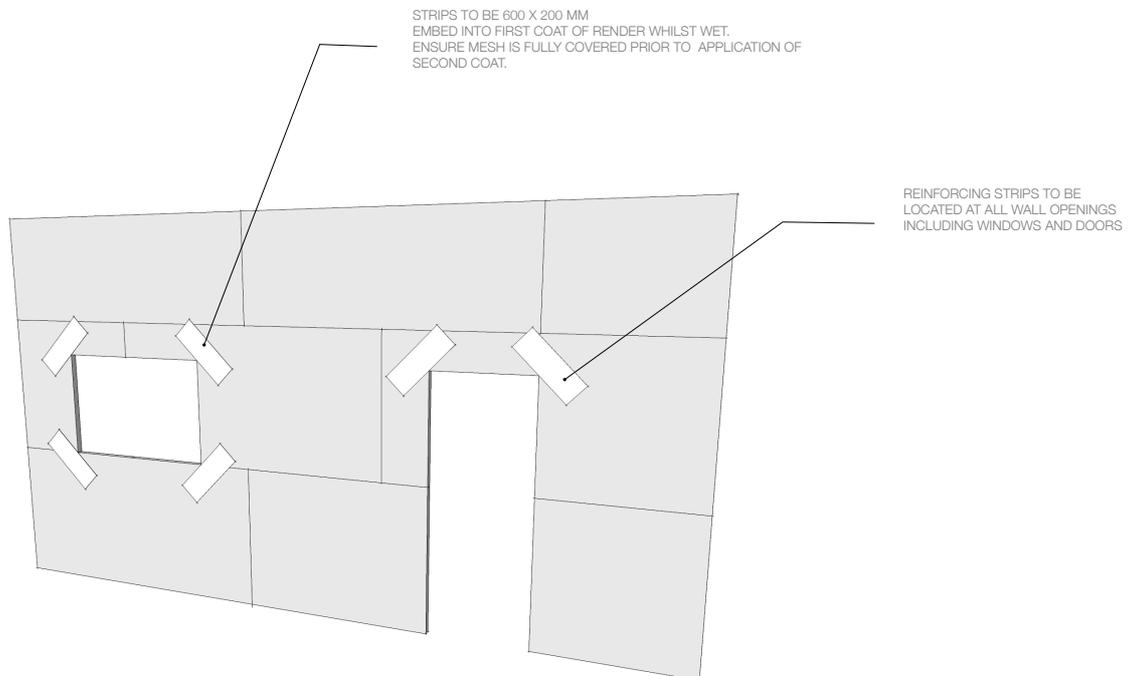
Finish Coat Application

- > Apply selected trowel-on or roll-on textured finish tinted to the chosen colour as per product specific data sheet and allow to dry for a minimum 24 hours prior to painting. The application of an acrylic textured finish is optional. Please note that the second render coat must be finished to a paint-ready standard if no textured finish is to be applied prior to painting.
- > Apply two coats of MAC Satin membrane (low sheen or matt) in selected colour. *Dark colours must be avoided to reduce risk of thermal cracking in the coating system caused by severe heat build-up. Selected colour must have an LRV greater than 45%.*

Important Notes

- > All MAC products must be applied in strict accordance with product data sheets with regard to application, finishing and environmental conditions at time of and immediately after application.
- > Dark colours should be avoided in the finish coat in order to avoid thermal expansion and contraction in the render coat during exposure to direct sunlight in extreme weather conditions. This thermal expansion/contraction can lead to stress cracks in the coating system in severe cases.
- > Balboard base panels must not be left exposed as degradation will occur. If any sign of surface degradation is apparent, contact Balboard for information regarding rectification.

FIGURE 1.3 POSITION OF REINFORCING STRIPS



Materials Warranty

When applied in accordance with the above specification, MAC will provide a 7 year materials warranty against peeling and delamination. This warranty does not cover workmanship or product failure caused as a result of hydrostatic pressure or structural movement. See warranty for details.

IMPORTANT NOTE:

Melbourne Acrylic Coatings Victoria Pty Ltd, its staff and distributors will not accept responsibility for any failure caused as a result of factors beyond our control including but not limited to onsite handling, preparation or application of this product. Application of this product should only be performed by qualified trades people trained in the use of this type of product. Information supplied in this publication is based on our testing and experience and is given in good faith. Suitability of this product should be independently determined prior to use. Warranty is limited to the replacement of any materials proven to be faulty. MAC will not warrant job defects caused as a result of but not limited to, structural movement or entrapped moisture.

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