

COATING SYSTEM SPECIFICATION: MCS-017-13/09

NRG GREENBOARD™

Render & Acrylic Texture

Product Overview

NRG Greenboard™ is an insulating walling system suitable for external cladding of timber or steel framed buildings as well as solid concrete and masonry walls. The system provides a weather resistant, seam free rendered finish in a wide range of textures and colours. It also provides continuous thermal insulation over the entire wall. Developed in Germany in 1973, these systems have been extensively used throughout Western Europe and North America where strict environmental laws are in place governing the energy efficiency of both private and commercial buildings. The system is now well established in Australia ranging from dry arid areas, to tropical and alpine regions, whilst proving energy efficiency, cost effective and flexible construction

Six Star Energy Efficiency

As Australia introduces six star Energy Efficiency requirements into the BCA there will be increased R-Values of insulation to walls. One way to achieve a high R-Value to external walls will be by installing Greenboard™ insulated wall cladding panels.

Greenboard™ combines external cladding with insulation to provide continuous thermal insulation over the entire wall area. Once Greenboard™ is rendered the system provides a lightweight weather resistant seam free rendered finish with great Energy Efficiency Ratings.

Further information available at: www.nrggreenboard.com

Materials Required

- > NRG Greenboard™ EPS base sheets installed as per NRG Greenboard™ installation manual
- > Approved flashing tape for weatherproofing window and door openings.
- > Aluminium starter channels for providing a neat and durable lower edge.
- > Class 3 galvanised screws for fastening sheets. Refer to NRG Greenboard™ Technical Manual for details.
- > Fixing washers as per NRG Greenboard™ requirements.
- > Approved adhesive for bonding all sheet edges during installation.
- > Alkali-resistant fibreglass mesh (165 gsm minimum) for inclusion in the first coat of render.
- > Fibreglass/aluminium combination angles for application to external corners.
- > Macrender® HBS for both 1st reinforced render coat and 2nd coat.
- > Macprime acrylic primer for application to finished rendered surface prior to the application of a decorative finish coat. Optional if render is to be painted with two coats of Satin membrane.
- > Mactexture decorative textured finish coat in selected grade and colour. Optional if render is to be painted with two coats of Satin membrane.
- > MAC Satin membrane for protective, low maintenance finish coat.

NRG Greenboard™ Installation

- > Install NRG Greenboard™ system as per technical documentation. The NRG Greenboard™ Technical Manual is available for download at www.nrggreenboard.com.

Surface Preparation

- > The NRG Greenboard™ panels, once installed, must be rendered as soon as possible. Contact NRG to confirm allowable time lapse between sheet installation and rendering.
- > The NRG Greenboard™ system must be clean and free from any impurities which may adversely affect the bond strength of the acrylic textured coating system.
- > Remove any loose, chalky or flakey material by brushing as required.

Table 1.1 Coating Application Schedule - In Order of Application

PRODUCT	PURPOSE	SPREAD RATE / FILM THICKNESS	NOTES
NRG Greenboard™	N/A	N/A	Install as per NRG Greenboard™ installation manual available for download at: www.nrggreenboard.com
Macrender® HBS	Provides adhesion to base panels and encases reinforcing mesh. This coat provides the key strength of the coating system.	3-6 mm approx.	Required all systems. Includes embedded FG mesh, external angles and all reinforcing strips.
Macrender® HBS	Provides added thickness and strength to coating system whilst providing the appropriate surface finish for subsequent coats in the system.	2-3 mm. Total thickness for both render coats min 5 mm in total.	Required all systems. No reinforcing in this coat. Finish quality to be appropriate for selected system from this point on.
Macprime	To provide a sound, weather resistant base and alkalinity barrier for application of textured coating.	Approx. 6 m ² / litre	Required where textured finish is to be applied for 7 year system. Not required when applying 2 x coats Satin membrane.
Mactexture acrylic textured finish	Provides a decorative textured finish and added durability of the coating system.	Varies greatly depending on selected textured finish. See product specific data for further information.	1 coat. Optional if painted finish specified.
Satin acrylic membrane	Improved resistance to moisture ingress, fading and dirt pick-up. Also provides a degree of crack-bridging ability.	Approx. 4 m ² / litre.	2 coats. Selected colour must have LRV greater than 45%.

Prior to Rendering

NRG Greenboard™ System Installation

- > Install NRG Greenboard™ system as per technical documentation. This documentation is available for download at www.nrggreenboard.com
- > All abutting sheet joints must be fully glued with liquid or foam polyurethane construction sealant/adhesive.
- > Flashing tape applied from joinery to building wrap on wall studs or as per NRG Greenboard™ requirements.

Preparation for Render Application

- > After sheet installation, ensure all washer heads are fastened flush with the surface of the NRG Greenboard™ base sheets.
- > The NRG Greenboard™ panels must be clean and free from any impurities which may adversely affect the bond strength of the render system.
- > Remove any loose, chalky or flakey material by brushing as required.

Render Coat Application

- › Apply Macrender® HBS to the NRG Greenboard™ sheet at a thickness of approximately 3-6 mm. Embed alkali-resistant FG mesh (160 gsm minimum) into wet render ensuring 100 mm overlap is provided at mesh joints. Float to a smooth finish ready to accept a second coat of render.
- › Corners at openings including window and door frames must be diagonally reinforced with 400 mm x 200 mm fibreglass bandages embedded in the first Macrender® HBS.
- › Apply a second coat of render Macrender® HBS at a thickness between 2-3 mm. Ensure a total render thickness of 5 mm in total has been achieved.
- › Control and movement joints must be placed as per NRG Greenboard™ Technical Manual or engineers recommendation and must not be bridged by the render or texture coating system.
- › Allow rendered surface to cure for a minimum of 4 days prior to priming with a single coat of Macprime (optional if applying a 2 x coat Satin membrane finish). Allow Macprime to completely dry to a non-tacky finish prior to application of finish coats.

Finish Coat Application

- › Apply selected trowel-on or roll-on textured finish in chosen colour as per technical data sheet. Allow to dry for a minimum 24 hours 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%.*

Caulking & Sealants

All weatherproofing sealants, caulking and control/movement joints must be applied/installed as per NRG Greenboard™ requirements and must not bridge the coating system.

Materials Warranty

- › When applied in accordance with the above specification, MAC will provide a 10 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/substrate movement. See warranty for details.
- › The NRG Greenboard™ system as installed as per NRG Greenboard™ installation manual is covered by its own warranty. Contact NRG Greenboard™ for further details or visit www.nrggreenboard.com
- › Change in colour of acrylic finishes is a natural part of the ageing process and is excluded from all warranty terms. 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/substrate movement or entrapped moisture.

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