



GREENBOARD™ PRODUCT DATA

Environmentally Responsible. Energy Efficient. Building Systems

Greenboard™ Product Data

Greenboard™ Energy Efficient Insulative Walling System Product Information

NRG Greenboard™ is an insulative 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 has been well tried in Australia over the past 15 years ranging from dry arid areas to tropical and alpine regions. The system has been proven very successful in these areas. The NRG Company is providing and increasing research and development of the system to improve the product.

The NRG Greenboard™ Insulative Walling System consists of:

- 14.1.1 An enhanced expanded polystyrene (EPS) insulation board impregnated with an insect repellent compound and fire retardant. The board is mechanically fixed to timber/steel stud frame or reinforced concrete or masonry wall. The surface of the Greenboard™ is etched and primed ready to accept reinforced render.
- 14.1.2 Plated screws and PVC washers for fixing the board to frame or substrate.
- 14.1.3 A polymer modified cement render reinforced with an alkali resistant fibreglass mesh.
- 14.1.4 External PVC angle beads and window trims.
- 14.1.5 Acrylic texture coating and or pigmented membrane finished in your selected colour.
- 14.1.6 Accredited system

The NRG walling system incorporating NRG reinforced renders and textured finish coatings form a complete cladding system from the frame to the finished surface.

When installed as per specification the system carries a full 10 year warranty covering the performance of the complete NRG system.

- 15.1.1 When using the NRG Greenboard™ system you are using an accredited system. The only system covering the complete applications from the board to the finished render.
- 15.1.2 When installed by a licensed applicator it carries a 10 year NRG warranty.
- 15.1.2 Insecticide treatment repelling ants, termites and vermin.
- 15.1.4 A high impact strength finish.
- 15.1.5 Has a thermal rating of ->R1.5 for the 40mm board -> R1.9 for the 60mm board -> R2.3 for 90mm board.
- 15.1.6 It has a sound insulation value of RW35 for 60mm board.
- 15.1.7 It is an extremely high-energy efficient product reducing heating costs in winter and cooling costs in summer.
- 15.1.8 It is an architecturally friendly and flexible product.
- 15.1.9 Having a fashionable rendered surface in a vast range of architectural finishes and colours to go with any surroundings.
- 15.1.10 Using recyclable materials NRG Greenboard™ is an environmentally responsible product.

Properties and Advantages of the NRG Walling

16.1.1 Environmental Factors

The NRG Greenboard™ panel is manufactured from high - density, rigid, expanded polystyrene. The raw material is gained as a by-product of the manufacture of oil . Greenboard™ is manufactured without the use of CFC's and does not contain or emit any poisonous gas. In fact NRG Greenboard™ is made up of 98% air entrapped in a closed cellular structure of polystyrene. This entrapped air accounts for the extremely good insulation properties of the Greenboard. Disposal of waste building materials and polystyrene is becoming a major concern for today's planners. This is not the case with NRG Greenboard™. The off cuts can be glued within the wall cavity prior to the installation of the internal linings as additional insulation also cutting down the impact to our environment as all the material is being used leaving no material to be removed from site.

- 16.1.2 **Insulation for Energy Efficient Buildings**
The NRG Greenboard™ system is probably the most cost efficient method of insulation in terms of R-value per dollar. Unlike some other methods of insulation that allow thermal bridging across the timber or steel studs the NRG Greenboard™ provides a continuous insulative sheath around the entire building.
- 16.1.3 **10 Year Warranty**
Unlike most other systems on the market this warranty covers the complete system.
- 16.1.4 **Impact Resistance**
NRG Walling System has sufficient impact resistance to cope with most domestic and commercial situations. In areas where high impacts may occur a double layer of the reinforced render is used.
- 16.1.5 **Easy to Render**
The surface of the NRG Greenboard™ is etched and primed providing an excellent substrate for the NRG Reinforced Greenboard™ Render.
- 16.1.6 **Energy Efficient Production**
Greenboard™ uses much less energy in its production than conventional building materials such as concrete and masonry.
- 16.1.7 **Fashionable Render Finishes**
Available in a wide range of architectural colours and styles.
- 16.1.8 **Design Freedom**
Curved walls, rounded corners, embossed patterns, raised wall areas, mouldings and other architectural features are simple to achieve and economically viable with the versatile NRG Walling System.
- 16.1.9 **Insect Repellent**
NRG Greenboard™ is impregnated with a natural insect repellent, perform guard.
- 16.1.10 **Biologically Inert**
The board will not rot and provides no nutritive value for insects or microorganisms.
- 16.1.11 **Building Wind Zones**
When mechanically fixed to a variety of substrates in accordance with the "NRG Greenboard™ Walling System - Installation Manual", November 2004 revision 3, the Wall Cladding System is suitable for use in the building wind zones as shown.
- 16.1.12 **(Table A Wind Ratings)**
Intermediate Region B (W33) - "sheltered suburban"
pd = 0.990 kPa
Intermediate Region B (W41) - "exposed suburban"
pd = 1.485 kPa
Intermediate Region C (W50) - "open rural"
(tropical cyclone)
pd = 3.289 kPa
Intermediate Region D (W65) - "open rural"
(severe tropical cyclone)
pd = 4.719 kPa

[Design Information General](#)

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