

MAGNUM[®] BOARD



NEW
GENERATION
'BREATHABLE'
BUILDING
MATERIAL

Magnum Board will ensure your next build meets the criteria of importance to sustainable development.

Magnum Board is a technologically advanced, high-quality Magnesium Oxide Board providing superior performance when compared to traditional wood fibre, gypsum and cement based products.

Magnum Board is fully supported by independent test data and history of use in these categories:

- | | |
|----------------------------------|--------------------------------|
| ✓ Interior wall & ceiling lining | ✓ Exterior cladding |
| ✓ Interior panelling | ✓ Exterior panelling |
| ✓ Tile backer | ✓ Rigid air barrier |
| ✓ Flooring underlay | ✓ Foreverbreathe™ Wall Systems |
| ✓ Fire rated walls and linings | ✓ SIP panels |
| ✓ Wet areas | ✓ Print |

Performance Benefits

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| ✓ Vapour permeable | ✓ Mould and insect proof |
| ✓ Free of nasty chemicals | ✓ Excellent adhesion |
| ✓ High moisture resistance | ✓ Installer friendly |
| ✓ High impact resistance | ✓ Supported by independent test data |
| ✓ Non-combustible with zero flame spread | ✓ Suitable for use in Foreverbreathe™ Specification |
| ✓ CO ₂ negative | |

Independently Tested

- Physical Properties Testing of Magnesium Oxide Sheets per AC386 (Acceptance Criteria for Fibre-Reinforced Magnesium-Oxide Based Sheets)
 - Flexural Strength per C1185-03
 - Dimensions and Tolerances per C1325-04
 - Moisture Movement per C1186-02
 - Water Absorption per C1186-02
 - Compression Indentation per C1325-04
 - Nail Head Pull-through per C1325-04
 - Falling Ball Impact per C1325-04
 - Shear Bond Strength per C1325-04
 - Humidity Deflection per C1325-04
 - Transverse Load per AC376 and E72-05
 - Wet Racking Shear per AC379 and E72-05 section 15
 - Xenon Arc Accelerated Weathering per ASTM G155
 - Surface Burning Characteristics per ASTM E84-05
 - Measurement of Acute Lethality of Thermal Decomposition Products per University of Pittsburgh Test Protocol, December 1988
 - Behavior of Materials in a Vertical Tube Furnace at 750°C per ASTM E136-04
 - Frost Resistance (Freeze/Thaw) per ASTM C1185
- SCION Bracing P21 x 2
- BRANZ Flame spread assessment FAR 4338
- 60 minute fire rating steel and timber framed wall
- EMSL VOC report
- Durability report interior wall linings inclusive of wet areas
- AccreditedMark Appraisal AML0001AU Magnum Board 18mm Flooring Underlay
- AccreditedMark Appraisal AML0002AU Magnum Board 16mm Weather Board
- BEAL Certifications Magnum Board Rigid Air Barrier appraisal C1405
- BEAL Certifications Magnum Board Weather Board appraisal C1410
- Holmes Solutions flexural testing Magnum Board 18mm Flooring Underlay

✔ **Why Magnum Board?**
It ticks all the boxes of importance to sustainable development. It allows wall systems to breathe, helping to create good indoor air quality. Its composition is engineered to eliminate the toughest construction problems: fire, water, insects, humidity, mould, poor air quality, bracing, mildew, impact and toxins. Literally billions of dollars are spent every year as a result of damage and health impacts caused by these problems. It is a Health Based Building Product completely free of toxins. It has been subjected to some of the toughest building materials testing regimes. Such as UL 2000 hour freeze thaw test simulating 20 years of wear and tear in all climatic conditions and AC308. It is dimensionally stable in freeze, thaw, heat and humidity cycles. Excellent adhesion properties allow fantastic finishes with paint, stucco, wallpaper, stone, tile, brick, HPL, timber veneer and much more. Overall installation and life cycle costs ensure Magnum Board is very competitively priced due to its high resilience to all conditions and 'one product fits all' positioning. It is both easy and very safe to install.

✔ **Is Magnum Board considered a sustainable Health Based Building product?**
Yes. Magnum Board is a mineral product, completely free of toxins such as asbestos, formaldehyde or silica. It can be disposed of with no impacts to the environment. It is manufactured completely at ambient temperature.

✔ **Is Magnum Board considered a negative CO₂ product?**
Yes. The Magnum Board product line is CO₂ negative meaning the product and / or its process absorbs CO₂ and turns it into magnesium carbonate and that remains in the board until the board is retired from service, in which case, the magnesium carbonate can be recycled to make MgO and ultimately recycled into more Magnum Board.

✔ **Is Magnum Board vapour permeable?**
Yes. Magnum Board comes with vapour diffusion test data of importance to constructing breathable wall systems (Foreverbreathe™).

✔ **Has Magnum Board been tested?**
Yes. Magnum Board has been subjected to some of the toughest testing being conducted on building materials today including the freeze/thaw and 2,000 hour weathering test which simulates 20 years of wear and tear in all climatic conditions including high heat and snow. Magnum Board products are appraised for use worldwide and New Zealand and Australia. Our factory is ISO certified and is audited on a quarterly basis by Underwriters Laboratories (UL). Every Magnum Board product comes with independent test data and history of use.

✔ **Is Magnum Board dimensionally stable in freeze, thaw, heat and humidity cycles?**
Yes. Unlike cement based materials the coefficient of expansion for Magnum Board is extremely low; therefore, when selecting and installing products such as our exterior cladding, there is no need to leave gaps between butt joints to accommodate for such expansion and contraction. This provides a much more aesthetically pleasing finish for many years to come.

✔ **What are the adhesion values of Magnum Board?**
Excellent allowing you to finish Magnum Board with products you desire such as paint, plasters, tiles, aluminium, HPL, LPL, timber veneers wall paper, stone, tile, brick and much more

✔ **Is Magnum Board competitively priced?**
Yes. by individual boards and specifically when considering overall installation and life cycle costs. By using Magnum Board you don't have to worry about damage caused by low-medium impacts, termites, carpenter ants or any other pests; decay caused by moisture, mould or UV or warping, swelling and wood rot caused by water; mould and mildew or toxins that are found in many wood fibre panels, plastics, gypsum and cement based products.

✔ **How can I hang pictures and other items on Magnum Board it's simple and easy to hang just about anything from Magnum Board?**
What works with gypsum based panel's works better with Magnum Board. Its high density composition provides better holding power using screws or nail fittings.

✔ **How do I store Magnum Board?**
Storage and handling of Magnum Board is simple. Refer to the technical manual for details.

✔ **Is Magnum Board easy to install?**
Yes. Magnum Board installs with screws or pneumatic nailer depending on the application you are using it for. Always follow the Magnum Board installation recommendations. Finishing interior walls and ceilings is also easy using our joint compound and fibre or paper tape. Since Magnum Board is smooth on one side, you can achieve a level 5 beautiful and durable finish.

✔ **Is Magnum Board safe for installers?**
Yes. In fact installing Magnum Board is as safe if not safer than installing any other material on the market today. Magnum Board is a mineral based product free of carcinogens and silica. Magnum Board is extremely safe for installers and consumers alike.