

The World's Greenest Internal and External Cladding & Sheathing Products

A More Affordable, Durable & Versatile Sheathing System Than Traditional Products

All MgO Corp Board products are: Non Toxic, Fireproof, Waterproof, Impact resistant, Mould, Fungal and Pest resistant with superior acoustic performance that could save a project up to 200% off the cost of materials &











MgO Corp Boards are JAS/ANZ, CODEMARK Certified (CM-11-A0007) and BCA Approved

www.mgoboard.com.au

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Magnesium Oxide Board Corporation is ISO9001 & 14001 compliant and certified for the manufacturer and supplier of the worlds greenest sheathing and panel board products.

All products of MgO Corp Board have been CodeMark audited, approved and registered through JAZ/ANZ and carry the appropriate certification registration code approval number and logos as issued by the governing authorities.











Australians and New Zealanders can now choose to build with confidence when selecting MgO Corp Board products.

MgO Corp Board products are used extensively in building and construction every day throughout Europe, the UK, the USA and Asia. Magnesium oxide board has been in the building industry for hundreds of years for use in residential and commercial buildings.

Now completely approved and available through Magnesium Oxide Corporation, Australia and New Zealand can finally enjoy the benefits of the world's greenest building products at affordable and competitive pricing.

Complies with the Building Code of Australia

- BCA Volume 2 Part 3.5.3.3, Fibre cement planks and weatherboard cladding
- BCA Volume 2 Part 3.5.3.4, Fibre cement sheet wall cladding
- BCA Volume 2 Part 3.5.3.5, Eaves and soffit linings
- BCA Volume 2 Part 3.7.1, Fire separation for FRL to (-120/120)
- BCA Volume 2 Part 3.8.6, Sound insulation to > Rw 54
- BCA Volume 1 Section C for FRL to (-120/120)

Environmental Changes Are Impacting The World in Which We Live

As the world's population grows, the stress and demands on our resources are having a dramatic effect on our environment and our surroundings.

We witness reports on a daily basis of the increasing risks of damage to property through storms, flooding and fire, with these events set to increase to levels never experienced in our life time.

These risks demand that we take preventative steps to seek out products and services that can best assist us in protecting our families and our properties.

When applied correctly MgO Corp Board products greatly benefit us in all aspects of life by immediately decreasing global green house gasses, lowering the carbon footprint of developments and offer our families protection with a safer and more sustainable insulation solution from the elements of water, wind, the heat and the cold.

Recent world events will affect how we live and the products we use to build our homes.



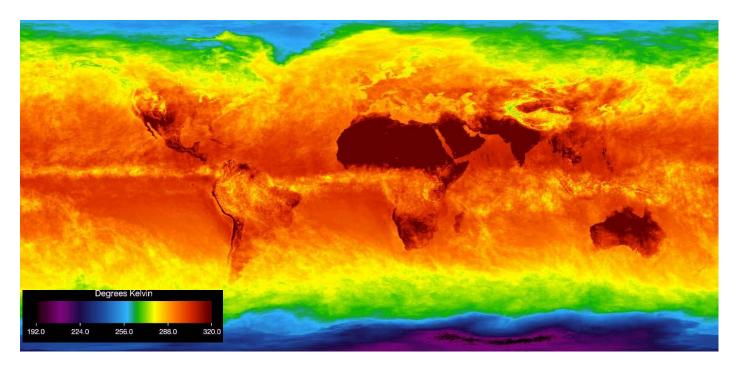






A Reality Check For Building & Construction

The really heart breaking part of getting up close and personal on a daily basis with the reality of life on planet earth is the realization that, despite our efforts, in the end it will not be enough. At least, it will not be enough until more people choose to make an effort to see the truth of our current world situation and make true conscience their guiding light. As one great man said "Humanity neither progresses nor evolves by Nature'. One can evolve; humanity cannot, for evolution proceeds only consciously.



As you read on, you will come to understand that we are in desperate need of more people to stand up and make a conscious choice. Because our world literally and figuratively, will soon reach, and surpass, 'boiling point'. To be brutally honest, there are precious few 'exit strategies left for humanity' and if radical action is not taken, and taken soon, there will be nothing left but ashes and broken lives to count.

Magnesium Oxide Board Corporation (MgO Corp) and our associates in the UK, USA & ASIA are 100% committed to raise awareness of the amazing benefits of our MgO Corp Board JAS/ANZ CODEAMRK Approved products, and how the application of these products through building and construction can greatly assist in the prevention of the devastating effects caused by Fire, Water and Storms on our communities.



MgO Corp appeals to world leaders, heads of government, designers, developers and builders alike to open their minds and embrace MgO Corp Boards amazing products and the opportunity to build more sustainable homes and commercial buildings. Buildings that will be stronger, safer, greener and more affordable to build than the present systems.

It is harsh reality that many Building and Construction Codes globally are being re written by large multinational building supply advisory groups in consultation with building authorities.



The end result is many of the newly regulated systems approved by the advisory committees only benefit the larger multinational companies involved. It is MgO Corps opinion that many of the approved systems that are suggested and past only to generating greater sales volumes of the nominated supply companies products.

The immediate spin on affect is additional financial strain to building and development companies which is passed onto struggling families that are desperate to buy their own home.

Supporting Example (FRL) Using MgO Corp Board reduces materials required under the same BCA performance specifications by between 50 to 200% to that of competing products.

MgO Corp Board (Single Board) (Non-Load Bearing) performance without insulation

9mm Board: -/60/60

• 9mm Board: (with 4mm fillet) -/90/90

• 10mm Board: -/90/90

• 10mm Board: (with 4mm fillet) -/120/120

• 12mm Board: -/120/120

 12mm Board: (with 4mm fillet) -/150/150
 *all above MgO Corp Board results have been audited and JAZ/ANZ CODEMARK Approved (CM-11-A0007)

• 14mm Board: **-/180/180**

14mm Board: (with 4mm fillet) -/210/210



Additional to the FRL performances MgO Corp Boards deliver to the end users superior levels of acoustic performances, energy efficiency (R)values, water and mould protection all in the one single sheet.

That's correct, MgO Corp Boards deliver all the extensive benefits from a single board application.

On average a typical lightweight home construction requires approximately six (6) different sheathing products during its construction to meet various applications:

- External Wall Lining
- Eave Lining
- Floor Lining



- Bathroom Lining
- Internal Wall Lining
- Ceiling Lining

The introduction of MgO Corp Boards in your next project will simplify the complete building process by eliminating up to 80% of the mixed bag of above products and replace these with a universal internal and external sheathing board.



Why Choose MgO Corp Board Products?

MgO Corp Boards JAS/ANZ CODEMARK Approved products will deliver your projects long term benefits that far exceed the cost savings:

- More energy efficient and cheaper to run homes and building
- Non-Toxic internal and external sheathing and flooring solution
- The very best protection from fire, water or storm events
- · Less maintenance due to wear and tear
- Protection from toxic mould and moisture buildup
- Peace of mind that your business and family has the very safest protection available

What Are The Experts Predicting and Are You Prepared?

(Reuters Report) – From floods that crippled countries, to mega cyclones, huge blizzards, killer cyclones to famine-inducing droughts, 2011 was another recordbreaker for bad weather.

While it was at the time of this report too early to predict what 2012 would be like, insurers and weather prediction agencies point to a clear trend: the world's weather is becoming more extreme and more costly.



The Reuters Report was more accurate than anyone could've predicted:

Following are details of major weather disasters for 2011 and the early forecasts that were made for 2012.



2011 OVERVIEW

Global reinsurer Munich Re says natural catastrophe losses for the first nine months of 2011 totalled \$310 billion, a record, with 80 percent of all economic losses occurring in the Asia-Pacific region. Since 1980, weather-related disasters globally have more than tripled.

The United States set a record with 12 separate billion-dollar weather disasters in 2011, with an aggregate damage total of approximately \$52 billion, the National Oceanic and Atmospheric Administration reported.



The U.N.'s World Meteorological Organization said global temperatures in 2011 are currently the 10th highest on record, higher than any previous year with a La Nina event, which has a relative cooling influence.

The 13 warmest years have all occurred in the 15 years since 1997. The extent of Arctic sea ice in 2011 was the second lowest on record, and its volume was the lowest.

Scientists say a warming atmosphere and more moisture in the air are providing fuel for weather systems, leading to more extremes. Rising levels of greenhouse gases from industry, transport and deforestation are providing that extra heat.

MAJOR WEATHER DISASTERS OF 2011

<u>January</u> — Record floods swamp Australia's east coast, killing 35 people, shutting coal mines, wiping out roads, rail lines and thousands of homes and costing more than \$2 billion in insured losses.

<u>"Snowmageddon":</u> Heavy snows blanket large parts of the United States including record falls in New York.

<u>February</u> — Cyclone Yasi, one of the largest and most powerful storms ever to hit Australia, strikes northern Queensland state, devastating sugar and banana crops. Massive winter storm hits U.S. Midwest and Northeast, causing travel chaos and power outages.



April – Series of tornadoes batter U.S. Southeast, killing an estimated 364 people.

<u>May</u> – Tornado hits U.S. town of Joplin, killing about 160 people, the single deadliest U.S. twister since 1947.

Floods in U.S. Midwest and Mississippi River Valley inundate millions of acres, trimming corn and soy plantings.

<u>June</u> – Floods in China's central and southern provinces kill more than 100 people. More than half a million are evacuated.

<u>July</u> – Worst drought in decades in the Horn of Africa triggers famine in Somalia and leaves 13 million people at risk starvation in a crisis expected to last well into 2012.

Flooding between July and late November in Thailand kills more than 600, affects a third of the country, causes damage of at least \$42 billion and inundates nearly 1,000 factories near Bangkok, disrupting auto and electronics global supply chains.

<u>August</u> – Hurricane Irene kills at least 40 people in the eastern United States and triggers the worst flooding in decades in some states. Economic losses estimated to top \$10 billion.



<u>September</u> – Scores die in worst flooding along the Mekong river since 2000.

<u>October</u> – Rare October snowstorm kills 13 in U.S. northeast and leaves 1.6 million without power.

<u>December</u> – Tropical storm Washi hits the Philippine island of Mindanao, triggering flash floods and mudslides and killing more than 1,200 people.

Year-long drought in U.S. state of Texas causes more than \$5 billion in agricultural losses and triggers wildfires that burn 4 million acres (1.6 million hectares). Summer temperatures in Texas break U.S. records.

PREDICTIONS THAT WERE MADE FOR 2012



A La Nina event in the Pacific Ocean is expected to last well into 2012. The phenomenon is a cooling of waters in the central Pacific and has a global impact on weather.

Forecasters expect it to bring above-average rains to northern and eastern Australia and more cyclones than normal during the Australian November-April storm season. La Nina events also tend to strengthen the Atlantic hurricane season.

Colorado State University researchers expect an above-average hurricane season if conditions that bring warmer than usual tropical water temperatures in the Atlantic continue and there no major El Nino event.

El Nino is a warming of surface waters in the eastern and central Pacific, affecting wind patterns that can trigger droughts in Australia and suppress Atlantic hurricanes.

Winter across Europe and the United States is also expected to be milder, forecasters say.

"The common thread this winter compared to last is the presence of La Nina," said Chris Vaccaro, public affairs director, at the National Weather Service in Washington. "But the La Nina we have now and through the winter is not anticipated to be as strong as last year."

In addition, the Arctic Oscillation, which was negative last year and sent frigid air southward leading to huge snowstorms, has largely been positive this year. The oscillation is a shift in atmospheric pressure cells that changes wind patterns.

A negative phase triggers high pressure over the Arctic and low pressure at mid-latitudes, which makes the Arctic zone relatively warm, but spills cold Arctic air southward to places like the U.S. Midwest and Northeast.

March 2012:

At the time of MgO Corp Boards Company profile update the Sunshine Coast In Queensland experiences the impact of another super cell weather event causing major flooding and extensive damage to homes, businesses and the loss of life in accidents cause through the event of the 22nd of March 2012.

The events around the world from January until March 2012 have highlighted everything and more that was reported by Reuters in 2011.









We are fast to point out the increased effects of fire and drought caused by increasing temperatures and reduced rain fall and how MgO Corp Board products can drastically increase your protection from these effects.

It is also easy to show the continued benefits of MgO Corp Boards products in reducing the impact of toxic mould and the devastation caused by record rain falls and storm cells on homes and communities.

At the same time it is easy to forget that the global environmental changes have also increased the BIG CHILL FACTOR in many parts of world.

During the winter of 2012 many parts of the Northern Hemisphere experiences record below zero freezing temperatures that forced the closures of highways and in many cases completely shut down complete countries.

Lakes and rivers that had never been frozen where turned into large blocks of ice and towns that have only ever seen snow in the distance where now frozen to a standstill. (The Danube River BUCHAREST was completely frozen for 23day straight costing millions of dollars lost in shipping)

Northern America, Canada and Northern Europe recorded snow falls and temperatures:

- Pian Rosa Italy -38c
- Le Puy France -41c
- Rezekne Latvia 43.2c
- Naimakka Sweden 53c
- Kevo Finland -57.9c

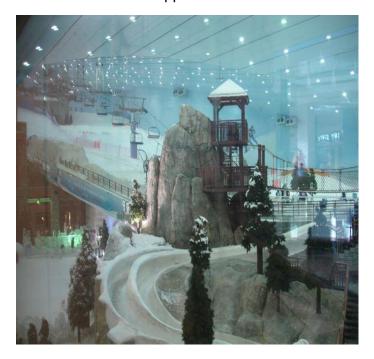
A little known and discussed fact is "that MgO Corp Board products" also perform perfectly when applied as internal and external linings for protection from the elements of freezing cold temperatures.



MgO Corp Board products are used in many commercial and residential applications such as:

- Commercial Cool Rooms
- Snow Shelters
- Indoor Snow Theme Parks
- Homes and Commercial Building

The superior composition, insulation and performance factors of Magnesium Oxid e Board Corporation Pty Ltd's JAS/ANZ CODEMARK APPROVED MgO Corp Board product ranges clearly deliver to our customers the world safest and the world's most diverse all in one internal and external building products. Products that suit all applications without endangering our environment or the occupants that reside in our buildings.



MgO Corp has taken extraordinary steps to assure our customers that they are buying the highest quality assured MgO products available by having our manufacturing, goods and services thoroughly reviewed, audited, inspected, certified and approved by the Australian Building Codes Board and JAS/ANZ CODEMARK to which Magnesium Oxide Board Corporation is the first company to be officially awarded the highest level of conformity approval for MgO products in Australasia.



Product Ranges:

- MgO Corp Boards
- · Decorative ceiling tiles and ceiling sheeting
- Wall panelling and exterior cladding
- Sub-flooring
- Acoustic perforated boards
- T-bar
- Paper coated MgO Corp internal boards
- XPS sandwich panel

MgO Corp Board Cladding, Ceiling & Wall Sheathing Base Composite:

- MgO Corp Board is manufactured from mineral components and water
- MgO Corp Board contains:
- No organic solvents
- No oils
- No toxic ingredients
- No heavy mental salts
- No asbestos
- MgO Corp Board is a combined system of MgO, MgC12 and H20 alkali agent.

The stable magnesium colloid is reinforced by middle alkali glass fibre net and stuffed by light material. It then becomes new frameless decorative material.

It has the features of light quality, strong intensity, little contraction and easy construction.



Features & Advantages:

- MgO Corp Board significantly reduced installation costs. Depending on the application, MgO Corp Board offers savings of 50% to 200% over competing products. EG: A Single12mm MgO Corp Board CODEMARK APPROVED product offers -/120/120 fire protection. This example uses 200% less material!!
- MgO Corp Boards are non-nutrient to mould or fungus and do not support insect life. Providing superior moisture resistance in high humidity areas and combats the growth of mould and mildew.
- MgO Corp Boards are resistant to water.
- The board will not disintegrate when immersed in water or exposed to freeze/thaw cycles for prolonged periods of time.
- MgO Corp Boards can be finished with any traditional drywall construction compounds, materials and finishes.
- MgO Corp Boards are manufactured from a combination of magnesium oxide and magnesium chloride. It includes non hazardous and environmentally friendly fibrous reinforcement.
- MgO Corp Boards come in light creamy white colour.
- Standard production material is very smooth one side and sand textured on the other.
- Either solvent based oil paint or water based latex paint can be used. If the panels are to be directly exposed to rain and weather, apply a prime coat of acrylic-siloxane waterproofing sealer, followed by oil based paint.
- Standard edges are square and tapered. Special edges and sizes are available.

Interior / Exterior:

- Where MgO Corp Board is to be used as a mounting surface for ceramic tile, such as in a bath or shower enclosure, solvent mastic is recommended.
- Magnesium Oxide Board Corporation recommended assemblies consist of exterior wall, interior wall, shaft wall, steel column, staircase, ceiling, floor and roofing.

Applications Include:

- Residential homes & Apartment Complexes
- Commercial & high rise buildings
- Schools & Hospitals
- Hotels & Restaurants
- Nightclubs
- Airports
- Sub way stations & tunnel projects

MgO Corp Board products do **NOT** contain asbestos, gypsum, lime, cement, formaldehyde and other harmful radioactive substances.

Flooring Applications:

- MgO Corp Flooring Boards can be used with wood or light gauge steel framing.
- MgO Corp Flooring Board diaphragm stiffness allows distributed loads of over 240psf (117kg/m²) for L/360 when supported on 16" (406mm centres and 360psf (1758kg/m²) for L/240.
- Flexural strength is equivalent to concrete at approximately 3000psi (20,670kPa) in compression.
- MgO Corp Flooring Boards can be used in heavy commercial construction with the assembly consisting of I-beam construction and Type B corrugated decking in spans up to 5' (1.5m), thus eliminating costly and time consuming concrete pours.

Performance Characters:

- Density: Approximate density of each thickness is 0.95-1. 10g/cm³. Density can be adjusted in the production.
- Fireproof characteristic: A grade, not combustible
- Intensity of bending resistance when dry: 18Mpa
- Intensity of bending resistance when moisture-saturated condition: 22Mpa
- The rate of deformation when moisture is picked up: 0.26%
- The shrinking rate when heated: 1.0%
- Water permeability: There is no drop of water to emerge in the back of the board
- Impact resistant: No crack, strip and/or run through
- Thermal resistance: 1.14²k/w with R-values Starting above 1.5
- Sound insulation: BCA V2 3.8.6 >Rw54 & STC Double Sheet 9mm System of STC60
- Security: 100% free of asbestos, formaldehyde and benzene.

Properties & Performance

- MgO Corp Boards are CODEMARK APPROVED and offer 30min, 60min, 90min &120min fire
 resistant wall systems, providing an unprecedented degree of safety and security. (technical data
 is available for review on fire protection configurations that offer 180 & 240min using MgO Corp Boards)
- MgO Corp Boards have a flame spread and smoke propagation rating of 0 per ASTM E84. STC rating of 53 on a 2 hour UL assembly and 54 on a 3 hour UL assembly.
- MgO Corp Board panels may be fastened to supporting joists using non corrosive self drilling, self countersinking and or corrosion protected cement board screws.
- Fasteners should be spaced at 12" (305mm) intervals along edges. Spacing may be increased to 18" (457mm) at intermediate joists.
- MgO Corp Boards may be cut, trimmed or shaped using ordinary power or hand tools.
- MgO Corp Board products are the ideal alternative to clay materials, gypsum board, cement board, fyrchek and or the upgrading and transformation of aluminium composite panel products.

Magnesium Oxide Board Corporation Sheathing Attributes Comparison

Attributes	Magnesium Oxide Board	Gypsum Board	Plywood/OSB	Cement Board
Fire Resistant & Non-Combustible	Yes	X	X	Yes
Water & Moisture Resistant	Yes	Х	X	Yes
Mold & Mildew Free	Yes	X	X	Yes
Insect Resistant	Yes	X	X	Yes
Nail	Yes	Yes	Yes	Yes
Cut/Saw – No special tools	Yes	Yes	Yes	X
Wallpaper over	Yes	Yes	X	Х
Tile Backer	Yes	X	Х	Yes
Insulation Sound & Heat	Yes	X	X	Yes
Environmentally 'Green' & Non-Toxic	Yes	X	X	Х
Strong & Durable	Yes	X	Yes	Yes
Light Weight	Yes	Yes	Х	Х
Recyclable	Yes	X	X	X
,	100			

Magnesium Oxide Board Corporations Board Physical Characteristics Comparison

Value	Magnesium oxide board	Gypsum plasterboard	Gypsum wallboard
Bending ultimate strength, MPa	27	5,3	3,5
Density, kg/m³	800-1300	1200	830
Thermal conductivity, W/m?°	0,32	0,22-0,36	0,18
Combustibility	Non combustible	Not easily combustible	Not easily combustible
Thermal linear expansion coefficient	0	0,5-1,5%	0,5-2%
Facial surface hardness, MPa	5,9 - 8,3	2,2	1,8
Surface moisture absorption	no more than 0,34%	no more than 3%	no more than 10%
Vapour permeability, mg/m*h*Pa	0,11-0,14	0,15	0,16









Product Data Sheet: Magnesium Oxide (MgO) Board

Product of: Magnesium Oxide Board Corporation Pty Ltd

ACN: 151 952 724

(1) Description of Product:

MgO Board/ Fireproof/ Water Resistant / Impact & Acoustic Boards (Magnesium Oxide Board)

(2) Places of applications:

Residential, Commercial and Industrial Building & Constructions, Partition Walls, Internal & External Sheeting, Flooring Systems, Common Finishes, Paper Coated, Laminated or Decorative Finishes, Suspended & Acoustic Ceilings, XPS/EPS Sandwich Panels, etc.

MgO Corps boards are lighter, flexible, pliable & more cost effective than traditional sheeting systems significantly reducing installation cost over a project at times offering savings of between 50% to 200% of that of competing products depending on the applied applications.

Construction, Material Finishes

MgO Corp products are manufactured from mineral components that are fibrous reinforced to assure the bonding process is superior at all times. All products have been certified and registered under the AS/NZS Standards and the BCA Codes of Australia.

MgO Corp panels and boards are manufactured in natural beige to cream colour. The standard production finish is very smooth on one side and sand textured on the other with standard edges being square or tapered (special edges and size sheets are available subject to order quantities).

(3) Ingredients:

- MgO (Magnesium Oxide)
- Mgcl12 (Magnesium Cloride)
- Perlite (SiO2)
- Alpha Cellulose Material
- Filer Glass fibre mesh and non-woven fabric

(4) MgO Composition Ingredient:

- Magnesium Oxide (MgO)
- Magnesium Chloride Solution (MgCl2) (included NaCl≤1.5% KCl≤0.7%)
- Phosphoric Acid (H3PO4)
- Iron Sulphate (FeSO4)
- Polyvinyl Alcohol Glue
- Aluminium Sulphate Water Solution (AISO4)
- Magnesium Sulphate
- Alpha Cellulose Material
- Perlite
- Glass fibre mesh and non-woven fabric

MgO Corp Board Standard	Production Sheet Sizes
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Thickness	Width (Cut to size available)	Length (Custom sizes available)
2	1100mm	2440mm, 2745mm, 3050mm
3mm	1220mm	2440mm, 2745mm, 3050mm
4mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
5mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
6mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
7mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
8mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
9mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
10mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
12mm	1100mm	2440mm, 2745mm, 3050mm
12111111	1220mm	2440mm, 2745mm, 3050mm
14mm	1100mm	2440mm, 2745mm, 3050mm
14111111	1220mm	2440mm, 2745mm, 3050mm
15,000	1100mm	2440mm, 2745mm, 3050mm
15mm	1220mm	2440mm, 2745mm, 3050mm
16mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
18mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
20mm	1100mm	2440mm, 2745mm, 3050mm
	1220mm	2440mm, 2745mm, 3050mm
24mm	1100mm	2440mm, 2745mm
	1220mm	2440mm, 2745mm
30mm	1100mm	2440mm, 2745mm
30111111	1220mm	2440mm, 2745mm
38mm	1100mm	2440mm, 2745mm
	1220mm	2440mm, 2745mm
45mm	1100mm	2440mm, 2745mm
	1220mm	2440mm, 2745mm
E0	1100mm	2440mm, 2745mm
50mm	1220mm	2440mm, 2745mm

Subject: Storage and Handling Instructions

Date: January 2012

1.0 INTENT OF THIS DOCUMENT

1.1 To define the instructions required to receive and store MgO Corp Board Products.

2.0 GENERAL

2.1 Even though MgO Corp Boards are virtually impervious to Fire, Water, Insects and Chemicals; does not feed Mould or Mildew; is Non-Toxic, Non-Flammable and Non-Combustible and is Very Durable, for best results it is always recommend that consumers follow the detailed construction practices when taking care, custody and control of materials:

3.0 PROCEDURE

- 3.1 Stack flat on dun-age do not allow material to bow, or to sit directly on the ground.
- 3.2 Keep material dry prior to and during installation
- 3.3 Do not stack other materials on top of MgO Corp Board.
- 3.4 Protect MgO Corp Boards from jobsite dirt.
- 3.5 Protect edges, ends and faces of MgO Corp Boards from damage.
- 3.6 Store MgO Corp Boards inside and protected from damage by weather and direct sunlight whenever possible

4.0 REFERENCES

Magnesium Oxide Board Corporation "MSDS" 8/175 Ocean Drive Twin Waters Queensland Australia 4564

Website: www.mgoboard.com.au Email: info@mgoboard.com.au

Phn: +61754507314

Material Safety Data Sheet MSDS

No.: MGOCORP-010112

Products Intended Uses:

Exterior: sheathing, fascia, soffit, ceiling board, drop ceiling, roofing substrate, siding, trim material.

<u>Interior:</u> wallboard, ceiling board, tile backing board, underlayment, flooring substrate. Structural Insulated Panels (SIPS) and Exterior Insulated Finish Systems (EIFS)

Product Compliances:

Complies with the Building Code of Australia:

BCA Volume 2 Part 3.5.3.3, Fibre cement planks and weatherboard cladding

BCA Volume 2 Part 3.5.3.4, Fibre cement sheet wall cladding

BCA Volume 2 Part 3.5.3.5, Eaves and soffit linings

BCA Volume 2 Part 3.7.1, Fire separation for FRL to (-120/120)

BCA Volume 2 Part 3.8.6, Sound insulation to Rw 53

BCA Volume 1 Section C for FRL to (-/120/120)

SECTION 2: Performance Characters:

- Density: Approximate density of each thickness is 0.95-1. 10g/cm3; it can be adjusted in the production
- Fireproof characteristic: A grade not combustible
- Intensity of bending resistance when dry 18Mpa
- Intensity of bending resistance when moisture-saturate: 22Mpa
- The rate of deformation when picking up moisture: 0.26%
- The shrinking rate when heated: 1.0%
- Water permeability: Not even a drop of water can pass through the back
- Impact resistance: No cracking, stripping and run through
- Minimum Thermal resistance: 1.14m²k/w
- Sound insulation: ≥ BCA V2 3.8.6 > Rw54 (single 14mm sheet wall system)
- Security: 100% does not include any asbestos, formaldehyde, or benzene

Physical Characteristics:

- Flexural Modulus: Not less than 0.93 x 106 psi when tested in accordance with ASTM D6109.
- Flexural Strength: Not less than 1295 psi when tested in accordance with ASTM D6109.
- Shear Strength: Not less than 391 psi when tested in accordance with ASTM D6109.
- Fungus/Mould: Non-nutritive when tested in accordance with ASTM G21.
- Ingredients:
- MgO (Magnesium Oxide) (so called burnt magnesium) used in medicine for curing heartburn
- Mgcl2 (Magnesium Chloride) Contained in marine and rainwater and is the element of materials such as Bishofit
- Perlite (SiO2) (volcanic glass) in MgO Boards is used as filling material.
- Alpha Cellulose Material
- Filler Glass fibre mesh and non-woven fabric
- MgO Composition Ingredient:
- Magnesium Oxide (MgO)
- Magnesium Chloride Solution (MgCl2) (included NaCl≤1.5%, KCl≤0.7%)
- Phosphoric Acid (H3PO4) no
- Iron Sulfate (FeSO4) no
- Polyvinyl Alcohol Glue no
- Aluminum Sulfate water solution (AISO4) no
- Magnesium Sulfate no
- Alpha Cellulose Material
- Perlite
- Glass fibre mesh and non-woven fabric

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview:

Non-toxic, non explosive and is not a fire hazard.

Primary Routes of Entry:

Eyes: Dust may irritate the eyes from mechanical abrasion causing watering and redness.

Skin: Dust may cause irritation of the skin from friction but cannot be absorbed through intact skin.

<u>Ingestion:</u> Unlikely under normal conditions of use, but swallowing the dust from this product may result in irritation to the mouth and gastrointestinal tract.

<u>Inhalation:</u> Dust may cause irritation of the nose, throat, and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) on inhaling dust during sanding or sawing operations.

SECTION 4: FIRST AID MEASURES

EYES: Remove contact lens. Flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.

SKIN: Wash with mild soap and water. Contact physician if irritation persists or later develops.

INGESTION: If ingested, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention. If unconscious, loosen tight clothing and lay the person on his / her side. Give nothing by mouth to an individual who is not alert and conscious. Seek medical attention.

INHALATION: Remove to fresh air. If shortness of breath or wheezing develops, seek medical attention.

NOTES TO PHYSICIAN OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

- MgO Corp Board's range of products are non flammable, non explosive and non combustible.
- Fire and Explosion Hazard: Not applicable
- Flash Point: Not applicable
- Auto-ignition: Not applicable
- Extinguishing Media: This material is non combustible
- Appropriate extinguishing media should be used for a surrounding fire
- Fire Fighting: Fire fighting personnel should wear normal protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

No special precautions are necessary to pick up product that has been dropped.

The following applies only to spills or releases of dust generated during cutting or sanding MgO Corp Boards.

<u>Precautions:</u> Good housekeeping practices are necessary for cleaning up areas where dust has been produced. Take measures to either eliminate or minimize the creation of dust.

Wherever possible, practices likely to generate dust should be curtailed with engineering controls such as local exhaust ventilation, dust suppression with water and containment, enclosure or covers.

<u>Cleanup Methods:</u> A fine water spray may be used to suppress dust when sweeping (dry sweeping is not recommended). Vacuuming with an industrial vacuum cleaner outfitted with a high-efficiency filter is recommended over sweeping. Waste may be disposed of by landfill in compliance with federal, provincial, state, territory and local requirements governing non-toxic mineral materials.

Avoid using materials and products that are incompatible with this product. (Refer to section 10.)

SECTION 7: HANDLING AND STORAGE

Handling and storage of products in their intact state does not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or otherwise abrading, and cleaning or moving sawdust.

Other Precautions:

Even though MgO Corp Boards have been tested and deemed non toxic, Magnesium Oxide Board Corporation recommends that exposure to dust be kept as low as reasonably possible.

Respirtable levels should not exceed those specified by OH&S and MSHA and identified in this MISDS.

Exposure to respirtable (fine) dust depends on a variety of factors, including activity rate (i.e. cutting rate), method of handling (i.e. electric shears), environmental conditions (i.e. weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in well ventilated areas (i.e. outside). The work practices and engineering controls set out in Section 8 should be followed as precautions to reduce dust exposures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Cutting Outdoors:

- 1. Magnesium Oxide Board Corporation recommends positioning cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
- 2. Use one of the following methods based on the required cutting rate and jobsite conditions.

Acceptable Practices:

- Score and snap using carbide-tipped scoring knife or utility knife (ability to use this method depends on thickness of MgO Corp Boards being installed)
- Fibre cement board shears (electric or pneumatic).

Preferred Practices

Dust reducing circular saw equipped with appropriate blade and vacuum extraction.

<u>Suitable Practices</u> (for low to moderate cutting only - DYI projects)

• Dust reducing circular saw with appropriate saw blade; always use correct tools when executing all cutting operations.

Ventilation:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limit.

Respiratory Protection:

Dust mask is recommended.

Eye Protection:

When cutting material, dust resistant safety goggles / glasses should be worn and used in compliance with the BCA and ASTM standards.

Skin Protection:

Loose comfortable clothing should be worn. Magnesium Oxide Board Corporation recommends that direct skin contact with dust and debris be avoided when possible by wearing long sleeved shirts and long trousers, a cap or hat, and gloves.

Sanding / Drilling / Other Machining:

If sanding, drilling, or other machining is conducted, Magnesium Oxide Board Corporation recommends workers wear approved dust masks at all times.

Important Notes:

- 1. For maximum protection (lowest respirtable dust production), Magnesium Oxide Board Corporation recommends always using "Best" level cutting methods where feasible.
- 2. Always use a circular saw blade that is appropriate for the specific operation being undertaken.
- 3. Dry sweeping is not the preferred clean up method. Magnesium Oxide Board Corporation suggests wet suppression methods or vacuum.
- 4. It is not recommended that a grinder or continuous rim diamond blade be used for cutting.
- 5. Always follow tool manufacturer's safety recommendations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Is commonly white to beige in colours depending on application, each with varying tensile strengths according to product application.

Odour: Very mild

Physical State: Solid boards

Vapour Pressure: Not relevant

Specific Gravity: Not relevant

Flammability Limits: Not relevant

Boiling Point: Not relevant

Melting Points: Not relevant

• Flash Point: Not relevant

Auto-ignition Temperature: Not relevant

Volatility: Not relevant

Solubility in Water: Not relevant

Evaporation rate: Not applicable

NFPA Ratings (Scale 0 – 4)

• Health = 1

Flammability = 0

• Reactivity = 0

Personal Protection = E

SECTION 10: STABILITY AND REACTIVITY

Stability:

The MgO Corp Board products identified in section 1 are stable under ordinary conditions.

Conditions to Avoid:

Excessive dust generation without proper dust mask protection.

Materials to Avoid:

Incompatibility: Hydrofluoric acid will dissolve Magnesium Oxide and can generate Magnesium Chloride fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

MgO Corp Board products are non toxic in their intact form. The following applies to dust that may be generated during cutting and sanding.

Chronic Effects: Inhaled:

Repeated and prolonged overexposures to dust may cause increased risk of bronchitis. It is possible that repeated inhalation exposure to MgO Corp Boards fibre dust over time may lead to inflammation of the lungs in humans. All necessary precautions should be taken to prevent inhalation of dust to prevent these problems.

SECTION 12: ECOLOGICAL INFORMATION

Because Magnesium Oxide is a naturally occurring mineral, releases that may occur into the environment are not expected to leave any hazardous material that could cause a significant adverse impact.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of material, as an inert, inorganic mineral, in conformance with federal, provincial, state, territory and local regulations. MgO Corp Boards are not a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

There are no special requirements for storage and transport of MgO Corp Boards.

- UN No: None allocated
- Dangerous Goods Class: None allocated
- Hazchem Code: None allocated
- Poisons Schedule: None allocated
- Packing Group: Not applicable
- Label: Not a DOT hazardous material

SECTION 15: REGULATORY INFORMATION

- DOT Hazard Classification: None
- Placard Requirement: Not a DOT hazardous material
- CERCLA Hazardous Substance (40 CFR Part 302)
- Listed substance: Not listed
- Substance: No Reportable Quantity (RQ)
- None Characteristic(s): Not applicable RCRA
- Waste Number: Not applicable

SECTION 16: OTHER INFORMATION

Preparation of Information and Disclaimer:

This form has been prepared to meet current Federal & State OH&S hazard communication regulations and is offered without any warranty or guarantee of any type. Magnesium Oxide Board Corporation Pty Ltd cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and alteration of its products.

The information contained in this MSDS was produced without independent scientific or medical studies analysing the effects of MgO Corp Boards' dust upon human health.

The information contained herein is based upon scientific and other data Magnesium Oxide Board Corporation Pty Ltd believes is valid and reliable and provides the basis for this MSDS.

The information contained herein relates only to specific materials listed in the document.

It does not address the effects of MgO Corp Boards' dust when used in combination with other materials or substances, or when used in other processes.

Because conditions of use are beyond Magnesium Oxide Board Corporation's control, the company makes no representations, guarantees or warranties, either express or implied warranties as to the fitness of the product for use, and assumes no liability related to the information contained above.

Magnesium Oxide Board Corporation Pty Ltd requires, as a condition of use of its products, that purchasers or applying agent complies in full with all applicable Federal, Provincial, State, Territory and Local health and safety laws, regulations, orders, requirements, and strictly adhere to all instructions and warnings which accompany the product.











CERTIFICATE OF CONFORMITY

This is to certify that

Magnesium Oxide Board TM Corporation (MgO) Board TM



Product description

MgO Corp Magnesium oxide board is an magnesium oxide cold ceramic sheeting, Available in the following dimensions: environmentally friendly all natural Brand name: MgO Board™

BCA Volume 2 Part 3.5.3.3, Fibre cement planks and weatherboard cladding BCA Volume 2 Part 3.5.3.4, Fibre cement sheet wall cladding BCA Volume 2 Part 3.5.3.5, Eaves and soffit linings

Complies with the Building Code of Australia:

BCA Volume 2 Part 3.7.1, Fire separation for FRL to (-120/120) BCA Volume 2 Part 3.8.6, Sound insulation to Rw 53 BCA Volume 1 Section C for FRL to (-/120/120)

Subject to the following conditions and limitations:

- 3mm to 30mm thickness
- 1220X2440
 - 1200x2400.

Product purpose or use

exterior wall sheeting. Drop celling panels MgO board is intended as an Interior and

Certificate holder

ci

Must be installed in accordance with the approved MgO board*** general installation manual (GIM- edition 1-2011) or fire installation manual (FIM edition 1-2011)

Must only be used in situations applicable for the products use as detailed in the relevant sections of the installation manual (GIM

edition 1-2011) or fire installation manual (FIM edition 1-2011)

load bearing walls for FRL (-120/120)

Must be installed by a qualified tradesman or builder

When used in fire separation wall must be installed in accordance with the MgO Corp. fire wall installation manual and only in non

Magnesium Oxide Board Corporation Pty

Shop 8/175 Ocean Drive Twin Waters Old 4564 ABN 47 151 952 742

Address: PO Box 7144, Sippy Downs, QLD, 4556 (ACN 111 217 568) Trading as "CertMark JAS-ANZ Accreditation No. 24450210AK Bio Technology Australasia Australesia

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CodeMark certification body

John Thorpe Website: www.certmark.com.au

13/08/2011 Draw

Building Certifier Unrestricted

Kevin Denison M.Sc

Director

Date of expiry 3/08/2014 Date of Issue

Certificate Number

CM-11-A0007

AS-ANZ

ABCB

This Certificate of Conformity is issued by an accredited certification body under arrangement with JAS-ANZ. The ABCB does not in any way warrant, guarantee or represent that the Product the subject of this Certificate of Conformity conforms to the BCA, nor accepts any liability arising out of the use of the Product. The ABCB disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this Certificate. Certifiark Australasia

it is advised to check that this Certificate of Conformity is currently valid and not withdrawn, suspended or superseded by a later issue by referring to the ABCB website, www.abcb.gov.au.

BCA: NCC2011 BCA Volume 1 Part C: Fire Resistance and Stability

- C1.0 Deemed-to-Satisfy Provisions
- C1.1 Type of construction required
- C1.2 Calculation of rise in storeys
- C1.3 Buildings of multiple classification
- C1.4 Mixed types of construction
- C1.5 Two storey Class 2, 3 or 9c buildings
- C1.6 Class 4 parts of buildings
- C1.7 Open spectator stands and indoor sports stadiums
- C1.8 Lightweight construction
- C1.9 * * * * *
- C1.10 Fire hazard properties
- C1.11 Performance of external walls in fire
- C1.12 Non-combustible materials

BCA: NCC2011 BCA Volume 2 Part 3: Acceptable Construction

- 3.5.3.2 Timber weatherboard cladding
- 3.5.3.3 Fibre cement planks and weatherboard cladding
- 3.5.3.4 Sheet wall cladding
- 3.5.3.5 Eaves and soffit linings
- 3.7.1.1 Application
- 3.7.1.3 External walls of Class 1 buildings
- 3.7.1.4 Measurement of distances
- 3.7.1.5 Construction of external walls
- 3.7.1.6 Class 10a buildings
- 3.7.1.7 Allowable encroachments
- 3.7.1.8 Separating walls
- 3.7.1.9 Fire hazard properties
- 3.8.6.1 Application
- 3.8.6.2 Sound insulation requirements
- 3.8.6.3 General installation requirements for walls
- 3.8.6.4 Services

Registration Certificate

The Certification Body of CertMark Australasia Pty Ltd

Herby certify that:

Magnesium Oxide Board Corporation

Shop 8, 175 Ocean Drive Twin Waters Queesland4564

Has implemented a Quality Management System in accordance with:

ISO 9001:2008

The scope of the quality management system includes:

A Quality management system of the importation and sale of Magnesium Oxide Board sheeting.

Certificates expiry date: 1/01/13

Certificate Registration Number: QA-2-1112

Effective date: 1/01/12







ISO9001 Certified Company

Registration Certificate



The Certification Body of CertMark Australasia Pty Ltd

Herby certify that:

Magnesium Oxide Board Corp

Shop 8, 175 Ocean Drive, Twin Waters Qld 4564

Has implemented an Environmental Management System in accordance with:

ISO 14001: 2004

The scope of the environmental management system includes: The implementation of an environmental management procedural system relevant to the importation and sale of magnesium oxide board sheeting.

Certificates expiry date: 10/01/13

Certificate Registration Number: EMS-1-0112

Effective date: 10/01/12

Signed John Thorpe





ISO 14001 Certified Company

The bottom line effect when using MgO Corp Board systems for building and construction, as well as many other applications such as joinery, fire doors, cool rooms or storm bunkers for your family, is that it will benefit you in all cases.

MgO Corp Board has been proven to drastically reduce your building costs.

For instance, in construction in Australia and New Zealand a non-load bearing fire separation wall using the most recognised and reliable double fire sheeting system will cost you, the consumer, a minimum of 50% to 200% more in materials and labour than the MgO Corp Board Solution.

That is correct, MgO Corp Board Systems will deliver you an immediate saving of 50% to 200% on materials and labour when utilising the proven and fully BCA certified MgO Corp Board sheathing solution.

The same can be said about acoustic requirements and the application of MgO Corp Board shearing solutions to dramatically deliver the consumer a higher quality system as a much reduced pricing point.

The amazing major point of difference is that MgO Corp Board delivers all the above and below benefits in the one product.

- External cladding
- Roof linings and installation
- Bathroom linings
- Floor sheathing
- Internal wall sheeting
- Acoustic requirements
- Fire separation wall systems
- Painting
- Maintenance
- Cooling costs
- Heating costs
- Energy efficiency
- Labour and time

















1300 721 279