

SUPERTEC Magnesium Oxide Board

Why Use SUPERTEC Magboard?

Features of the product

Lighter than cement board, smoother than drywall, more flexible than cement board, more rigid than drywall, much more inert than either cement board, drywall or wood based board materials.

Magnesium Oxide Board resists:

- Salt (sodium chloride) brines and salt water
- Chlorine bleach (sodium hypochlorite) and related pool chemicals
- Ammonia (ammonium hydroxide) and related chemicals
- Water (freeze/thaw-tested for 36 months), changes in temperature up to 800 °C
- Repeated wetting and drying or freezing and thawing
- Swelling, losing strength or deterioration
- Moulds, mildew, bacteria, fungus, termites, rodents and other organisms
- Fire (UL 055 and ASTM-tested and A-rated)
- Impact damage

Magnesium Oxide Board is:

- Non-combustible Class A building materials – 20 Mpa
- Breathable and porous for strong coating and adhesive bond
- Ideal for basements, garages, washrooms, wet pool areas and laundry rooms
- For ALL residential, commercial, industrial and institutional construction
- Perfect for adding fireproofing to wood frame construction and elsewhere
- Excellent acoustic dampening material with higher density and elasticity
- Refractory material for infrared radiation (heat) assisting to reduce loss of energy when heating or cooling by reducing conductivity
- Non-hazardous, natural, non-toxic and disposable as crushable clean fill
- Environmentally friendly and produced without wasting large amounts of fossil fuel or releasing significant CO² into the atmosphere in production
- Available in Chalk White and pre-cut sizes on request
- Stronger and more rigid to allow thinner material to do the same job
- Easier to work with using all types of hand tools and wood working equipment but also can be cut with a quick score and snaps faster than drywall

Please contact us for further information:

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MAGNESIUM OXIDE BOARD





SUPERTEC Magnesium Oxide Board Applications

- Interior Wall and Ceiling Board
- Exterior Sheathing
- Trim Materials
- Fascias
- Soffits
- Shaft-liner & area separation wall board
- Tile backing (backer board) and underlayment
- Substrates for coatings and insulated systems such as: Direct Applied Finish Systems, EIFS, SIPS, Portland type Stucco and Synthetic Stuccos.

What is Magnesium Oxide Board

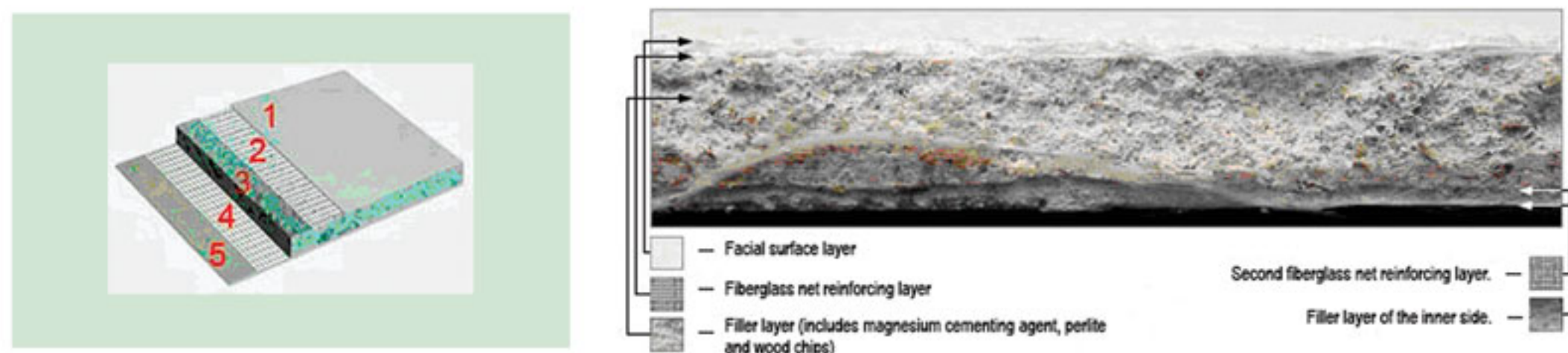
Magnesium oxide (MgO) has been used dating back thousands of years. It has been found that magnesium oxide was used in the Great Wall of China as a cement form. China has the world's largest deposits of magnesium oxide, which is sufficient to resupply the world with cement fibre, gypsum and wood partitioning and ceilings every year for the next 800 years. Magnesium oxide board (MgO board) is a factory-made, insulating sheathing board product. It is made primarily of magnesium oxide, and is commonly called simply (MgO) due to its chemical composition of magnesium and oxygen. MgO board is similar to gypsum board or cement fibre board - however with several improved characteristics such as fire resistance, weather ability, strength, resistance to mould and mildew, flexibility, adherence advantages and so on.

It can be used indoors and outdoors, and in damp locations, such as showers or wet areas. Like cement based sidings, if MgO is used outdoors in an exposed location, it needs sealing in much the same way as cement. MgO is used structurally, as in bracing for walls, and also semi-structurally, such as an underlayment for flooring. Magnesium oxide board was developed many years ago as a cheap alternative to cement fibre board. It turned out as a coincidence to be a product with many other advantageous characteristics. MgO Board was extensively used in construction during the 2008 World Olympics buildings in Beijing...and was used in the world famous Taipei 101 building which up until recently was the world's tallest building.

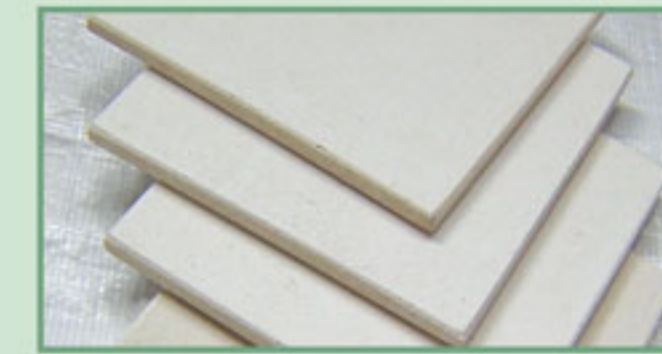
Magnesium Oxide Board Structure

MgO board consists of 5-7 layers dependant on specification:

1. Facial surface layer
2. Fibreglass net reinforcing layer, which makes the board durable and stable
3. Filler layer (Includes magnesium cementing agent, perlite and wood chips)
4. Second fibreglass net reinforcing layer
5. Filler layer of the inner side



SUPERTEC Magnesium Oxide Board Main Characteristics



- Density (g/cm³) : 0.85-1.05
- Bending strength (M/mm) : 18 -27Mpa
- Breaking load : 113-498
- Thermal resistance:1.14m²k/w
- Sound Insulations:>44dB
- Shrinking rate when heated:1.0%
- Facial surface hardness 5.9-8.3 Mpa
- Surface moisture absorption no more than 0.34%
- Water absorption capacity 15%
- Vapour permeability, mg/m²*h*Pa 0.11-0.14
- Rate of length change (wetting %) : Below 0.26%
- Non flammability : Fire proof 1st grade

Magnesium Oxide Board Attributes Comparison

Value	SUPERTEC MAGBOARD	Cement Board	Plywood	Gypsum Wallboard	Gypsum Sheathing	O.S.B.
Flame Spread	0	0	High	Low/15	Low/10	High
Smoke Developed	None	None	High	Low	Low	High
Water Resistant	Yes	No	No	No	No	No
Mold/Mildew Resistant	Yes	Yes	No	No	No	No
Termite Resistant	Yes	Yes	No	Yes	Yes	No
Thermal Insulation R-Value per inch	1.2	.8	1.2	.9	1.1	1.0
Impact Strength	High	Medium	High	Low	Low	Medium
Combustibility	Non	Non	Burns	Facing	Facing	Burns
Structural	Yes	No	Yes	No	No	Yes
Environmental	Good	Good	Good	OK	OK	Poor
Freeze/Thaw	Good	Good	Good	Poor	Poor	Good
Interior	Tape and Paint	Provide Cladding	Provide Cladding	Tape and Paint	Tape and Paint	Provide Cladding
Exterior	Apply Stucco or Cladding	N/A	Apply Paper and Stucco or Cladding	N/A	Apply Stucco or Cladding	Apply Paper and Stucco or Cladding



Available Sizes

- Thickness: 3mm - 50mm
- Standard sizes: 4 / 6 / 9 / 12mm
- Standard width and length: 1200mm x 2.4m / 2.7m / 3m

ENVIRONMENTALLY FRIENDLY

SUPERTEC MAGBOARD is concerned about the environment.
SUPERTEC MAGBOARD is manufactured from mineral components and water.

- Contains No organic solvents / No oils / No toxic ingredients / No heavy metal salts / No asbestos
- Asbestos & Formaldehyde Analysis: No Asbestos fibre was found to be present.
- Formaldehyde measured >5 ug/g - none added in processes.