

Product Description

- **MEGCRETE™ MgO board products** are high density structurally rated magnesium cement sheathing that can be used as a direct replacement for plywood and OSB for exterior sheathing and subflooring panels, interior and exterior gypsum panels and fiber cement subfloor and tile backer panels. Racking and shear values meet and exceed most of the forementioned structurally rated products.
- **MEGCRETE™** outperforms all other sheathing panels from an impact, fire, water, mold, mildew, and insect/rodent resistance standpoint.
- **MEGCRETE™** is a versatile building material and can be used in many varied applications, such as exterior sheathing, interior wallboard, ceilings, subfloors, roofdecking, tile backer, soffits, fire-resistant exterior sheathing, fire-resistant wall assemblies, fire-resistant floor/ceiling assemblies, and fire-resistant soffits.
- **MEGCRETE™** is manufactured in a strictly controlled, low energy, factory environment. NEXGEN MgO boards are homogenous, toxin-free, inorganic mineral based products and is available in varying thicknesses, sizes, and edge profiles.
- **MEGCRETE™ 1/2" (12mm) and 5/8" (16mm) single layer fire-resistant assemblies** outperform gypsum-based products in 1-hour and 2-hour fire rated assemblies.

Products

- **MEGCRETE™ Fire-Resistant Wallboard** is designed to be used internally or externally as a gypsum replacement. It can be taped and plastered in a similar fashion to traditional gypsum-based products. It performs particularly well in fire resistant wall, floor, and ceiling assemblies.
- **MEGCRETE™ Fire-Resistant Exterior Sheathing** is designed for use as a fire-resistant external or internal structural sheathing. It can be nailed or screwed or stapled to studs and provides a smooth finish surface that can be accept all traditional exterior finishes.
- **MEGCRETE™ Fire-Resistant Subflooring** is designed as a single layer subfloor product, to which tiles, hardwood flooring and laminate flooring can be applied directly. It can span 24" o.c. and can be nailed or screwed. For best results it is recommended that all subfloors are glued and screwed.
- **MEGCRETE™ Soffits** are designed to provide fire rated ventilated or non-ventilated soffits.
- **MEGCRETE™ Tile Backer** is designed as a water-resistant non-combustible tilebacker.

Product Benefits

1.0 Fire Resistant

MEGCRETE™ has unmatched fire resistance. Non-combustible (ASTM E136) zero/zero rating for flame spread and smoke developed (ASTM E84). Multiple cost-effective fire-rated wall and floor/ceiling assemblies.

2.0 Water Resistant

Impervious to water. **MEGCRETE™** can be exposed to prolonged construction site exposure, adverse weather conditions and be submerged in water for extended periods of times with no major loss of structural integrity.

3.0 Mold Resistant

Does not feed mold or mildew. Zero organic matter. 0/0/0 rating for mold propagation.

4.0 Impact Resistant

High impact resistance. **MEGCRETE™** can withstand high traffic, high impact areas such as hospital corridors, schools, hotels, and heavy traffic areas, even blows with a hammer.

5.0 No Blocking

Excellent fastener holding capacity. Up to 170lb pull out force on approved fasteners.

6.0 Non-Toxic

Contains no toxic inputs, no VOC's, and has zero off-gassing. Does not contain any fly ash, formaldehyde, or crystalline silica. Rated as zero off-gassing. Completely people safe and contractor friendly.

7.0 Insect / Rodent Resistant

No organic matter. Zero food source for wood boring insects including termites and carpenter ants.

8.0 Low Water Content

Cured in a computer-controlled temperature and relative humidity controlled curing chamber, **MEGCRETE™** contains 5% water content. Less than gypsum.

Product Dimensions

Thickness Options

Imperial: 1/8" | 1/4" | 3/8" | 1/2" | 5/8" | 3/4"

Metric: 3mm | 6mm | 10mm | 12mm | 15mm | 18mm

Board Dimension Options

Imperial: 3' x 5' | 4' x 8' | 4' x 9' | 4' x 10' | 4' x 12'

Metric: (mm) 915 x 1525 | 1220 x 2440 | 1220 x 2750 | 1220 x 3050 | 1220 x 3660

Custom: Custom thicknesses and dimensions available by request. Subject to minimum order.

Edge Finish Options

Square: all thicknesses

Beveled: all thicknesses

Tapered: 12mm or greater

T&G: 15mm or greater

Ship Lap: 15mm or greater

Soffits

Available in smooth and wood grain; ventilated and non-ventilated in most thicknesses.

Contact NEXGEN Building Products for further details and assemblies.

Product Packaging

- **MEGCRETe™** is shipped on pallets with protective cover sheets, corner protection, banded, and wrapped in plastic.
- Pallet sizes are 3' x 5', 4' x 8', 4' x 9', 4' x 10', and 4' x 12'.
- All pallets loaded to a maximum of 4,800 lbs (2,177 Kg)

Product Storage

- Store **MEGCRETe™** products in clean, dry areas off the ground (indoors if possible)
- Cover panels with plastic sheets, tarps; leave covers open and away from the sides of the panels to allow for air circulation.
- Consider additional protection during extended adverse weather conditions.
- **MEGCRETe™** panels should be stored on the manufacturer's pallets off the ground and away from standing water.
- To protect edges from damage, do not store **MEGCRETe™** panels vertically.
- To prevent the risk of injury, do not stack **MEGCRETe™** panels higher than 12 feet.
- Loose storage of **MEGCRETe™** panels is not recommended.

Warranty

- All **MEGCRETe™** products come with a Limited Warranty.
- **MEGCRETe™** Warranty can be downloaded at www.nexgenbp.com

Code Compliance

- **MEGCRETe™** is tested and certified by CCMC, ICC-ES, UL, QAI, and Intertek, all ISO accredited independent testing agencies, to UL, ULC, ASTM and NFPA standards and is fully compliant with the 2009, 2012 and 2018 International Building Code and International Residential Code.
- CCMC, ICC-ES, UL, QAI and Intertek conduct Third Party Quality Assurance audits on the **MEGCRETe™** ISO Certified Factory.
- **MEGCRETe™** fire-resistant wall, floor and ceiling assembly reports can be found at QAI and ULC.
- **MEGCRETe™** ICC-ES ESR-2880 report
- **MEGCRETe™** CCMC 14038_e report

Installation Guidelines & Limitations

- See **MEGCRETe™ Installation Guide(s)** for installation instructions and product limitations.
 - **MEGCRETe™ Installation Guide** can be downloaded at www.nexgenbp.com
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Testing and Certification

ICC-ES ESR-2880	ICC-ES certified for use as fiber-reinforced magnesium-oxide based sheathing
CCMC 14038_e	CCMC certified for use as Interior and Exterior Sheathing
ASTM E135-04	Non-Combustibility
ASTM E136-04	Behavior of Materials in a Vertical Tube at 750 C
ASTM E84-05 (NFPA 262)	Surface Burning Characteristics
ULC S102-10	Surface Burning Characteristics. Zero Smoke Spread and Zero Flame Spread
ULC S102	Zero Smoke Spread, Zero Flame Spread
ASTM E119-14 (ANSI/UL 263)	1-Hour and 2-Hour Non-Load-Bearing Fire Rated Wall Assemblies
ASTM E119-08a	Standard Test methods for Fire Tests of Building Construction and Materials
	1-Hour and 2-Hour Non-Load-Bearing Fire Rated Wall Assemblies
UL 263 Design No. U061	Exceeds requirements for single 12mm (15/32") layer one (1) hour fire rating
Can ULC S101 Design No. U061	Exceeds requirements for single 12mm (15/32") layer one (1) hour fire rating
Can ULC S102 Design No. U061	Exceeds requirements for single 12mm (15/32") layer one (1) hour fire rating
ASTM E119 Design No. U061	Exceeds requirements for single 12mm (15/32") layer one (1) hour fire rating
UL 263 Design No. U061	Exceeds requirements for single 12mm (15/32") layer one (1) hour fire rating
QAI Design No. B1073-1a	1.0-Hour Load Bearing Fire Rated Assembly
QAI Design No. B1073-1b	1.5-Hour Load Bearing Fire Rated Assembly
QAI Design No. B1073-1c	2.0-Hour Load Bearing Fire Rated Assembly
QAI Design No. B1073-1d	2.0-Hour Load Bearing Fire Wall
ULC Design No. W490	1-Hour Non-Load Bearing Non-Combustible Fire Rated Assembly
ASTM C1185-03	Flexural Strength
ASTM C1185-08	Flexural Strength After Construction Durability Exposure
ASTM C1185-08	Flexural Strength Degradation due to Thermal Aging
ASTM C1185-08	Flexural Strength Degradation due to UV Exposure
ASTM C1185-08	Flexural Strength Degradation at Extreme Temperatures
ASTM C1185-08	Flexural Strength Degradation due to Freeze / Thaw
ASTM C1185-08	Flexural Strength Loss due to Water Exposure
ASTM C1185-08	Density / Specific Gravity (68% °F / 65% RH)
ASTM C1185-08	Moisture Content
ASTM C1185	Frost Resistance (Freeze / Thaw)
ASTM C1186-02	Moisture Movement
ASTM C1186-02	Water Absorption
AWPA D6815-09	Duration of Load and Creep Effects Modified by ASTM C1185-08
AWPA E12	Fastener Corrosivity
ASTM E72	Exceeds Racking requirements.
ASTM AC386	Exceeds the structural requirements.
ASTM C1396-60A	Exceeds requirements for Humidified Deflection.
ASTM AC386	Exceeds requirements for Humidified Deflection.
ASTM C1325-04	Dimensions and Tolerances
ASTM C1325	Exceeds requirements for Shear Bond Strength
ASTM C1325	Exceeds requirements for Falling ball Impact.
ASTM C1325	Exceeds requirements for Nail Head Pull-Through
ASTM C1325	Exceeds requirements for Compression Indentation.
ASTM D-3273	Exceeds requirements for Resistance to Growth of Mold and Mildew

ASTM E96 / E96M	Exceeds requirements for Vapor Transmission.
ASTM C1186	12mm = 23%
ASTM D5116	Contains no VOC's and exceeds the overall requirements of the US Green Buildings Council LEED Standard for VOC's
ASTM C1396-06a	Humidified Deflection
AC376 and ASTM E72 section 15	Wet Racking Shear
ASTM G155	Xenon Arc Accelerated Weathering
ASTM G21	Standard Practice for Determining Resistance of Synthetic Polymeric materials to Fungi
U-Pitt Protocol	Exceeds the combustion toxicity protocol developed at the University of Pittsburgh, and the requirements for interior finish material as defined by Title 27.1.5.5 of the Building Code of the city of New York. Classification as: Non-Toxic and free of carcinogen, asbestos, and silica
Baker Certified Blast Ratings	Achieved Blast Rating Level 8

Sales Information and Technical Support

Contact NEXGEN Building Products today for sales information, order placement, or technical support by phone or email.

Phone: 1-651-260-9691

Email: support@nexgenbp.com

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