
General Requirements This technical guide is intended to provide general information to the designer, contractor, and end user. The following instruction guidelines will help you properly install **MEGCRETE™** products utilizing MBP-IP Technology (**MEGCRETE™**)

The contractor and/ or end user should complete their own code compliance review as well as comply with local safety regulations, the applicable building code(s), and under the guidance of the designing authority and the authority having jurisdiction.

Storage and Handling

- 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.
- See the **MEGCRETE™** product dimension and weights table for individual products and pallet sizes.
- Ensure forklifts or alternative equipment are capable of lifting and moving the pallet or load safely.
- Ensure if lifting pallets from long end the forks are long enough to balance the weight of the lift safely.

Safety

- Always use correct PPE (personal protective equipment) and tools when handling, cutting, and installing **MEGCRETE™** products including but not limited to:
 - Gloves
 - Safety Glasses
 - Dust Masks and/or ventilators
- Consult the **MEGCRETE™** SDS (safety data sheet) for any safety, health, and first aid instructions.
- Follow OH&S or OSHA guidelines for general site safety and for lifting techniques. Ideally carry panels with two people and avoid bending or flexing panels.

Fasteners

- **MEGCRETE™** sheathing is to be installed with approved corrosion resistant fasteners as per the ICC-ES and CCMC certification guidelines.
- Any use of non-certified fasteners will void any warranty claims by the contractor or end user.
- Approved fasteners for use install of **MEGCRETE™** onto wood framing include:
 - Stainless Steel Staples SS304 16ga, 7/16" Crown, 1-1/2" Leg
 - GRK Fasteners with Climatek™ Coating
 - Powder coated or stainless-steel fasteners.
 - Powder coated, coated, stainless steel nails.
- Approved fasteners for use install of **MEGCRETE™** onto cold formed steel framing include:
 - GRK Fasteners with Climatek™ Coating
 - Powder coated or corrosion resistant stainless steel self-tapping fasteners.
- Further any fasteners used to install ancillary products on to **MEGCRETE™** are required to be an approved fastener type. This includes exterior finishes, building wraps, strapping, and more.
- For any assistance on selection of fasteners please contact technical support at SHLD Building Products at 1.587.331.6220 or info@MEGCRETE.com

Adhesives

- Ensure the proper adhesive is selected for the task. Use ASTM D3498 compliant adhesives.
- Adhesives should be stored and installed according to the manufacturer's instructions.
 - SHLD Building Products suggests a polyurethane adhesive specially designed for bonding non-porous or slightly porous materials. A polyurethane adhesive is applied using a spray gun is not an expansive foam and remains in the form of thin strips when applied.
- Framing must be clean and free from dirt, oils, and contamination.
- Do not allow adhesive to skin over.
- Mechanical fasteners must be used in addition to adhesives.
- In the case of installation onto poly or vapour barrier where adhesive will not be used, all fasteners should be specified by the designing authority to ensure proper pull out and holding strength.

Cutting

- Position cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation. If possible, set up cutting station outdoors.
- Use one of the following methods based on the required cutting rate and jobsite conditions.
 - **Best:** Score and snap using carbide-tipped scoring knife or utility knife (Ability to use this method depends on thickness of MEGCRETE™ sheathing being installed.) Fiber-cement shears (electric or pneumatic)
 - **Better:** Dust reducing circular saw or table saw equipped with HEPA vacuum extraction. Regular saw blades can be used, a fiber-cement blade may reduce dust, cleaner cuts, and longer blade life. Support both ends of the board when cutting.
 - **Good:** Dust reducing circular, or table saw.
- Make circular cuts and irregular angle cuts with a Jigsaw, or Laminate Trimmer, or equivalent tool equipped with a cement board bit or carbide tipped blade.

Framing

- MEGCRETE™ sheathing can be installed on the exterior or interior of walls, ceilings, floors, and roofs similar to products like OSB, Plywood, Exterior or Interior Gypsum.
- Start with proper framing ensuring walls, joists, and trusses are straight and square to allow for a flat stress-free installation of MEGCRETE™ sheathing.
- Out of square framing may cause damage, warping, or cracking and should be repaired prior to install.
- Framing width shall not be less than 1-1/2" (38mm) wide for wood framing and 1-1/4" (32mm) for steel framing. Framing members shall not vary more than 1/8" (3mm) from the plane of the faces of adjacent framing.

Ceiling Installation

- Always install ceiling first.
- Use panel lifter or T-Brace to support weight.
- Use proper board orientation, fasteners, and connections in accordance with specific fire rated assemblies or as required by the designing authority.
- In lieu of fire rated assembly or projects specifications MEGCRETE™ can installed perpendicular to joists, or trusses.
- Install MEGCRETE™ sheathing with joints staggered. all edges should be supported by framing.
- Install approved fasteners straight and perpendicular, fasteners should penetrate framing members at least 1.5" (38mm).
- Locate approved fasteners at least 9/16" (14mm) from the ends and edges of sheathing and maximum 2" (50mm) from corners.
- Pre-drill MEGCRETE™ sheathing to easily countersink screws just below the surface. Do not overdrive screws.
- Start at center and work towards the perimeter.
- In lieu of projects specifications install approved fasteners at minimum 6" (152mm) o.c. along supported panel ends and edges and 6" (152mm) o.c. at intermediate supports.
- Fasten both board edges to their common stud.

Wall Installation

- Use proper board orientation, fasteners, and connections in accordance with specific fire rated assemblies or as required by the designing authority.
- In lieu of fire rated assembly or projects specifications **MEGCRETE™** can installed vertically or horizontally.
- If installing Horizontally, start at the top and work down.
- If installing Vertically, start at one end of the wall and work across.
- Install approved fasteners straight and perpendicular, fasteners should penetrate framing members at least 1" (25mm).
- Locate approved fasteners at least 9/16" (14mm) from the ends and edges of sheathing and maximum 2" (50mm) from corners.
- Pre-drill **MEGCRETE™** sheathing to easily countersink screws just below the surface. Do not overdrive screws.
- Start at center and work towards the perimeter. all edges should be supported by framing.
- In lieu of projects specifications install approved fasteners at minimum 6" (152mm) o.c. along supported panel ends and edges and 12 in. (304mm) o.c. at intermediate supports.
- **MEGCRETE™** shall be properly flashed at openings and preferably located so that no joint will align with an edge of the opening.
- Cut **MEGCRETE™** accurately and do not force it into place. To join boards at an inside corner, butt the second board against the first and fasten the edge of the second to the stud. To join boards at an outside corner, lap the end of the second board over the end of the first. Boards should be flush with each other to create a perfect 90-degree corner.
- Fasten both board edges to their common stud.
- All panels should be staggered with a 1/16" (1.5mm) gap between boards to accommodate movement when attached to CFS and 1/8" (3mm) when attached to wood.

Sub Floor Installation

- **MEGCRETE™** Structurally rated sheathing is available in 18mm or greater thickness, and with optional Tongue and Groove or Ship Lap Edges.
- Distributed live load values vary depending on joist spacing.
- Use proper board orientation, fasteners, and connections in accordance with specific fire rated assemblies or as required by the designing authority.
- In lieu of fire rated assembly or projects specifications **MEGCRETE™** should be installed perpendicular to joists, or trusses, with joints staggered, and all edges should be supported by framing.
- Install approved fasteners straight and perpendicular, fasteners should penetrate framing members at least 1" (25mm).
- Locate approved fasteners at least 9/16" (14mm) from the ends and edges of sheathing and maximum 2" (50mm) from corners.
- Pre-drill **MEGCRETE™** sheathing to easily countersink screws just below the surface. Do not overdrive screws.
- Start at center and work towards the perimeter.
- In lieu of projects specifications install approved fasteners at minimum 6" (152mm) o.c. along supported panel ends and edges and 12 in. (304mm) o.c. at intermediate supports.
- All panels should be staggered with a 1/16" (1.5mm) gap between boards to accommodate movement when attached to CFS and 1/8" (3mm) when attached to wood.
- Use dunnage plywood on top of the installed **MEGCRETE™** to protect it during the construction phase.

Roof Installation

- **MEGCRETE™** Structurally rated sheathing is available in 18mm or greater thickness, and with optional Tongue and Groove or Ship Lap Edges.
- Distributed live load values vary depending on joist spacing.
- Use proper board orientation, fasteners, and connections in accordance with specific fire rated assemblies or as required by the designing authority.
- In lieu of fire rated assembly or projects specifications **MEGCRETE™** should be installed perpendicular to joists, or trusses, with joints staggered, and all edges should be supported by framing.
- Install approved fasteners straight and perpendicular, fasteners should penetrate framing members at least 1" (25mm).
- Locate approved fasteners at least 9/16" (14mm) from the ends and edges of sheathing and maximum 2" (50mm) from corners.
- Pre-drill **MEGCRETE™** sheathing to easily countersink screws just below the surface. Do not overdrive screws.
- Start at center and work towards the perimeter.
- In lieu of projects specifications install approved fasteners at minimum 6" (152mm) o.c. along supported panel ends and edges and 12 in. (304mm) at intermediate supports.
- All panels should be staggered with a 1/16" (1.5mm) gap between boards to accommodate movement when attached to CFS and 1/8" (3mm) when attached to wood.
- Once installed, **MEGCRETE™** must be waterproofed with a suitable roofing material or approved waterproofing system per code requirements.

Water and Air-Resistive Barriers

Evolving codes, standards and programs are requiring the use of water and air resistive barriers. In most cases, these barriers are applied over the exterior sheathing. **MEGCRETE™** Sheathing has been widely accepted as a preferred substrate for all recognized types of water and air resistive barriers including but not limited to:

- Self-adhered sheet materials
- Fluid applied membranes.
- Spray polyurethane foam (medium density closed cell)
- Mechanically attached flexible sheet (includes #15 asphalt felt and synthetic wraps)
- Board stock air barrier – rigid foam core
- For a list of air barrier materials, accessories, and components, see the Air Barrier Association of America (ABAA) website (www.airbarrier.org).

Where joint protection is required or desired, two methods may be used:

Method 1

- Apply bead of all-purpose, single-component, moisture-curing, gap-filling polyurethane that creates permanently elastic seals and bonds in a wide variety of service environments to joints.
- Trowel to desired flush level.
- Use backer rod for openings larger than 1/8" (3 mm).
- Sealant should be approved for exterior and interior use by the manufacturer.
- Follow manufacturer's installation recommendations for use with **MEGCRETE™** Sheathing, and design authority specifications.
- Consult with SHLD Building Products for specific product recommendations.

Method 2

- Apply a translucent membrane joint tape that uses an acrylic adhesive.
- The membrane should self-seal against fasteners and conform to contours for continuous bonded contact. Joint tape to all joints, overlapping at intersections by the width of the tape.
- Use backer rod for openings larger than 1/8" (3 mm).
- Follow manufacturer's installation recommendations for use with **MEGCRETE™** Sheathing, and design authority specifications.
- Consult with SHLD Building Products for specific product recommendations.

Note: Consult with local building code, design professional, owner or cladding manufacturer for water-resistive barrier requirements and compatibility with the wall cladding.

Protection of Penetrations

All penetrations should be protected to prevent air and water infiltration. Follow building code, door/window manufacturer or design authority's recommendations for flashing around openings, abutments to dissimilar materials and wall terminations.

Recommendations and Limitations for Use

The following recommendations and limitations are important to ensure the proper use and benefits of MEGCRETE™ Sheathing.

Failure to strictly adhere to such recommendations and limitations may void the limited warranty provided by SHLD Building Products for such product. For additional warranty details, please go to www.MEGCRETE.com.

- MEGCRETE™ Sheathing is resistant to normal weather conditions, but it is not intended for immersion in water. Cascading roof/floor water should be directed away from the sheathing until appropriate drainage is installed.
- Avoid any condition that will create moisture in the air and condensation on the exterior walls during periods when the exterior temperature is lower than the interior. The use of forced air heaters creates volumes of water vapor which, when not properly vented, can condense on building materials. The use of these heaters and any resulting damage is not the responsibility of SHLD Building Products. Consult heater manufacturer for proper use and ventilation.
- The use of non-certified fasteners on MEGCRETE™ products is not recommended and will void any warranty claims.
- SHLD Building Products does not warrant and is not responsible or liable for the performance of any cladding, coating, finishes, coverings or other materials or exterior systems applied over MEGCRETE™ Sheathing. The suitability and compatibility of any system is the responsibility of the system manufacturer or design authority. Because materials expand and contract at different rates and under different conditions, SHLD Building Products does not guarantee crack free joints.
- Any use of MEGCRETE™ below grade or within 8 inches of exposed earth will require a suitable method of protection approved by the designing authority.

Sales Information and Technical Support

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

Phone: 1.587.331.6220

Email: sales@MEGCRETE.com

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