1. PRODUCT NAME
MVIS™ Hi-Bond Veneer Mortar

2. MANUFACTURER
LATICRETE International, Inc.
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Bethany, CT 06524-3423 USA
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Fax: +1.203.393.1684
Website: laticrete.com

3. PRODUCT DESCRIPTION
The ultimate, polymer fortified, thin-set mortar for interior and exterior installation of masonry veneer, stone, ceramic tile, quarry tile, pavers and thin brick. MVIS Hi-Bond Veneer Mortar, designed to mix just with water, has a long open time with unsurpassed adhesion and workability.

Uses
- Excellent for interior, exterior and submerged applications as well as providing superior bond to exterior glue plywood (interior only) and concrete. The ultimate thin-set for masonry veneer.

Advantages
- Ultimate adhesion for masonry veneer
- Incredible bond to exterior glue plywood* and concrete
- Excellent shear bond strength
- High performing
- Equipped with anti-microbial technology to protect the treated article
- Smooth and creamy formula
- Exceeds ASTM C270 compressive strength requirements for masonry veneer installations
- Passes IBC and IRC shear bond strength code requirements for adhered masonry veneer when tested in accordance with ASTM C482
- Exceeds ANSI A118.4
- Conforms to ISO 13007-1 with a classification of C2TES1P1
- LATICRETE® 25 Year System Warranty (United States and Canada) for masonry veneer installations over concrete and masonry substrates**
- ANSI A118.11 and ANSI A118.15
- * Interior Only.
- ** When used as a component of the LATICRETE® 25 Year System Warranty (United States and Canada) (DS 025.0)

Suitable Substrates
- Exterior Glue Plywood (Interior Only)
- Concrete
- Concrete Block
- CMU
- Existing Masonry and Brick
- Existing Ceramic Tile And Stones
- Cement Terrazzo
- Gypsum Plaster (Interior use only, non-wet areas)
- Gypsum Wallboard (Interior use only, non-wet areas)
- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use)
- Cement Mortar
- Cement Render

Packaging
50 lb bag (22.7 kg); 54 bags per pallet

Color
Grey

Approximate Coverage

<table>
<thead>
<tr>
<th>Vertical Applications</th>
<th>Ft²</th>
<th>M²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4” x 3/8” (6 mm x 9 mm) Notched Trowel</td>
<td>60–70</td>
<td>5.6–6.5</td>
</tr>
<tr>
<td>1/2” x 1/2” (12 mm x 12 mm) Notched Trowel</td>
<td>40–45</td>
<td>3.7–4.2</td>
</tr>
<tr>
<td>Adhered Masonry Veneer Application Method</td>
<td>30–33</td>
<td>2.8–3.1</td>
</tr>
</tbody>
</table>

Coverage will vary depending on trowel notch size, type and size of tile/stone and substrate.
Shelf Life
Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored off the ground in a dry area. *** High humidity will reduce the shelf life of bagged product.

Limitations
- Mastics, adhesive mortars and pointing mortars for masonry veneer, stone, ceramic tile, pavers and thin brick are not replacements for waterproofing membranes or air and water barriers. When a waterproofing membrane or air and water barrier is required, use Air & Water Barrier (see Section 10 FILING SYSTEMS).
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Not for use directly over particle board, luan, Masonite® or hardwood floors.
- Use LATAPOXY® 300 Adhesive for installing green marble, resin backed, or water sensitive tile, stone and agglomerates (refer to DS 633.0 for more information).
- Note: Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes. For exterior vertical installations over framed construction, the substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/600 where L=span length (except where local building codes specify more stringent deflection requirements).

Cautions
- Consult SDS for more safety information.
- Some stone have low flexural strength and may not be suitable for all installations.
- Protect finished work from traffic until fully cured.
- Contains portland cement and silica sand. Causes severe skin burns and serious eye damage. Wear protective gloves, protective clothing and eye protection. In case of contact, flush thoroughly with water.
- DO NOT take internally. Silica sand may cause cancer, respiratory irritation or serious lung problems. Do not breathe dust. Wear a respirator in dusty areas.
- For white and light–colored stones, conduct test area to ensure no shadowing or staining is observed.
- Keep out of reach of children.

4. TECHNICAL DATA

VOC/LEED Product Information
This product has been certified for Low Chemical Emissions (ULCOM/GG UL2818) under the UL GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment.

Total VOC Content pounds/gallon (grams/liter) of product in unused form is 0.00 lb/gal (0.00 g/L).
MVIS™ Hi-Bond Veneer Mortar is ISO 13007-1 C2TES1

### Working Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Time</td>
<td></td>
<td>40 minutes</td>
</tr>
<tr>
<td>Pot Life</td>
<td></td>
<td>2 hours</td>
</tr>
</tbody>
</table>

### Test Results

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Method</th>
<th>Specification</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Day Cure</td>
<td>ISO 13007 2.4.4.2</td>
<td>ANSI A118.15 7.2.5</td>
<td>&gt;400 psi (2.76 MPa)</td>
</tr>
<tr>
<td>Ten. Adhesive Strength</td>
<td></td>
<td></td>
<td>475–520 psi (3.2–3.6 MPa)</td>
</tr>
<tr>
<td>7 Day Cure</td>
<td>ISO 13007 2.4.4.3</td>
<td>ANSI A118.15 7.2.4</td>
<td>&gt;200 psi (1.38 MPa)</td>
</tr>
<tr>
<td>21 Day Water Immersion</td>
<td></td>
<td></td>
<td>275–300 psi (2.0–3.6 MPa)</td>
</tr>
<tr>
<td>14 Day Cure</td>
<td>ISO 13007 2.4.4</td>
<td>ANSI A118.15 7.2.4</td>
<td>&gt;150 psi (1.0 MPa)</td>
</tr>
<tr>
<td>14 Day Heat Age Tensile Strength</td>
<td></td>
<td></td>
<td>240–270 psi (1.7–1.9 MPa)</td>
</tr>
<tr>
<td>7 Day Cure</td>
<td>ISO 13007 2.4.4.5</td>
<td>ASTM C482</td>
<td>N/A</td>
</tr>
<tr>
<td>21 Day Water Immersion 25</td>
<td></td>
<td></td>
<td>350–370 psi (2.4–2.6 MPa)</td>
</tr>
<tr>
<td>Freeze/Thaw Cycle Tensile Strength</td>
<td></td>
<td></td>
<td>28 Day Cure 20 Cycle Freeze/Thaw Bond Strength To Calcium Silicate</td>
</tr>
<tr>
<td>Open Time After 30 Minutes</td>
<td>ISO 13007 2.4.1</td>
<td>ASTM C482</td>
<td>N/A</td>
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<tr>
<td>Slip</td>
<td>ISO 13007 2.4.2</td>
<td>N/A</td>
<td>230–260 psi (1.6–1.8 MPa)</td>
</tr>
<tr>
<td>Transverse Deformation</td>
<td>ISO 13007 2.4.5</td>
<td>ASTM C270</td>
<td>2400–2450 psi (16.5–16.9 MPa)</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td></td>
<td></td>
<td>28 Day Compressive Strength</td>
</tr>
</tbody>
</table>

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

F.7.3.12 - 0315 Data Sheets are subject to change without notice. For latest revision, visit laticrete.com. DS-246-0920
5. INSTALLATION

• Surface Preparation

All surfaces should be between 40°F (4°C) and 90°F (32°C) and structurally sound, clean and free of all dirt, oil, grease, paint, concrete sealers or curing compounds. Rough or uneven concrete surfaces should be made smooth with MVIS™ Premium Mortar Bed. Dry, dusty concrete slabs or masonry should be dampened and excess water swept off. Installation may be made on a damp surface. Concrete slabs must be plumb and true to within 1/4”(6 mm) in 10 ft (3 mm).

1. Installer must verify that deflection under all live, dead and impact loads of substrates does not exceed industry standards of L/600 for AMSMV units or stone installations where L=span length. For exterior vertical installations over framed construction, the substrate deflection under all live, dead and impact loads of substrates does not exceed 0.002.8).

Note: MVIS Hi-Bond Veneer Mortar does not require a minimum cure time for concrete walls or slabs. Expansion joints shall be provided through the veneer from all construction or expansion joints in the substrate. For natural stone installations on floors follow ANSI specification A108.01-3.7 “Requirements for Movement Joints: Preparations by Other Trades” or TCNA detail EJ-171 “Movement Joints—Vertical & Horizontal”. Do not cover expansion joints with mortar.

Mixing

Place clean, potable water into a clean pail. Add MVIS Hi-Bond Veneer Mortar. Use approximately 5.5 qts (5.2 L) of water for 50 lbs (22.7 kg) of powder. (To mix smaller quantities use 3.6 parts powder to 1 part water.) Mix by hand or with a slow speed mixer to a smooth, trowelable consistency. Allow mortar to slake for 5–10 minutes. Remix without adding any more water or powder. During use, stir occasionally to keep mix fluffy. DO NOT temper with water.

Note: For use as a slurry bond coat; mix 7 quarts (6.6 L) afer to a 50 lb (22.7 kg) bag of MVIS Hi-Bond Veneer Mortar.

Application

See applicable LATICRETE details in Masonry Veneer Installation System Brochure (DS 002.8).

Note: If installing on sheathed wood or steel frame construction with wire lath, use MVIS Premium Mortar Bed for the wall render prior to installing applicable MVIS Air & Water Barrier or MVIS Hi-Bond Veneer Mortar.

If waterproofing is required, install MVIS Air & Water Barrier per instructions (see DS 663.0 and DS 663.5) to the substrate prior to installation of MVIS Hi-Bond Veneer Mortar. For adhered stone, thin brick and manufactured stone masonry veneers installations, use a gauging trowel to key a thin coat of MVIS Hi-Bond Veneer Mortar to cover entire back of the veneer units. Spread additional mortar onto the back of the skim coated veneer sufficient to completely fill the space between the veneer and the substrate when compressed against the substrate. Press the mortar covered back of the veneer against the substrate at the desired final position. Slide the unit roughly 1 -1.5” (25-38mm) diagonally from the desired final position and back into the desired position while maintaining even pressure. This should be done in such a manner as to squeeze the mortar to fill the entire space between the veneer unit and the substrate, allowing excess mortar to extrude on all sides around the veneer unit. Clean excess extruded mortar with trowel and spread onto the next veneer unit to be installed. Note: Prior to installation, ensure back of veneer units are clean of dust, laitance, loose concrete crumbs and any excess film that could impede bond.

Alternate method for thin brick, tile, calcium silicate unit and stone installations: key MVIS Hi-Bond Veneer Mortar into the substrate thoroughly. Then, comb on additional mortar with the notched side, use 1/4” x 3/8” (6 mm x 9 mm), 1/2” x 1/2” (12 mm x 12 mm) loop or notch trowel. Back butter all thin brick, veneer units 8” x 8” (200 mm x 200 mm), ¾” (19mm) loop trowel or larger to provide full bedding of the veneer. Place veneer into the mortar and adjust to desired position. Clean any excess mortar on sides of stone or tile veneer.

Note: Use proper sized notched trowel to ensure full bedding of the stone veneer. Spread only enough mortar for maximum coverage with tile within 15–20 minutes. Trowel notch size determined by contractor, size of veneer and job-site coverage. Adjust as necessary. Check mortar for complete coverage by periodically removing veneer unit and inspecting the transfer onto substrate and back of the stone veneer. The size and weight of the veneer will vary. Due to job site conditions and differences in finish material types; ledger boards, shims, wedges or spacers may be required to maintain finish levels and heights.

Grouting/Pointing (if required)

When required, point installation after a minimum of 24 hours curing time at 70°F (21°C).
Point with MVIS Epoxy Pointing Mortar (conduct test area to determine suitability and acceptability with veneer) MVIS Premium Pointing Mortar mixed with water or MVIS Pointing Mortar mixed with water.

**Cleaning**
Clean tools and stone work with water while mortar is fresh.

6. **AVAILABILITY AND COST**

**Availability**
LATICRETE materials are available worldwide.

For Distributor Information, Call:
- Toll Free: 1.800.243.4788
- Telephone: +1.203.393.0010

For on-line distributor information, visit LATICRETE at [laticrete.com](http://www.laticrete.com)

**Cost**
Contact a LATICRETE Distributor in your area.

7. **WARRANTY**

See 10. FILING SYSTEM:
- DS 230.13: 1 Year Product Warranty
- DS-230.15SPD: LATICRETE 15 Year System Warranty For Steel or Wood Framed Exterior Facades (United States and Canada)
- MVIS

8. **MAINTENANCE**

Non-finish LATICRETE® and LATAPOXY® installation materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. **TECHNICAL SERVICES**

**Technical Assistance**
Information is available by calling the LATICRETE Technical Service Hotline:
- Toll Free: 1.800.243.4788, ext. 1235
- Telephone: +1.203.393.0010, ext. 1235
- Fax: +1.203.393.1948

**Technical and Safety Literature**
To acquire technical and safety literature, please visit our website at [laticrete.com](http://www.laticrete.com).

10. **FILING SYSTEM**

Additional product information is available on our website at [laticrete.com](http://www.laticrete.com). The following is a list of related documents:
- DS 230.13: LATICRETE Product Warranty
- DS 230.15: LATICRETE 15 Year System Warranty – For Steel or Wood Framed Exterior Facades (United States and Canada)
- DS 025.0: LATICRETE 25 Year System Warranty (United States and Canada)**** When used as a component of the LATICRETE® 25 Year System Warranty (United States and Canada) (DS 025.0)