1. PRODUCT NAME
MVIS™ LIGHTWEIGHT Mortar

2. MANUFACTURER
LATICRETE International, Inc.
1 LATICRETE Park North
Bethany, CT 06524-3423 USA
Telephone: +1.203.393.0010, ext. 235
Toll Free: 1.800.243.4788, ext. 235
Fax: +1.203.393.1684
Internet: www.laticrete.com

3. PRODUCT DESCRIPTION
MVIS LIGHTWEIGHT Mortar is a lightweight, high performance multi-use, polymer fortified adhesive mortar. MVIS LIGHTWEIGHT Mortar offers tremendous utility including non-sag wall installations.

- For wall installations of interior and exterior thin brick, masonry veneer, stone, and tile

Advantages
- Incredible non-sag performance, including large and/or heavy thin brick, stone, masonry veneer, or tile
- Lightweight formula. A 30 lb (13.6 kg) bag provides the same coverage as a 50 lb (22.7 kg) bag of traditional mortar.
- Exceeds ANSI A118.4, 118.11 & 118.15 Requirements
- Bonds to many suitable substrates
- Unique color options are now available in all LATICRETE® grout colors when mixed with PERMACOLOR® Select Color Kits*

- Concrete Block
- Cement Backer Board**
- Existing Ceramic Tile And Stone

* Interior use only.
**Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

Packaging
30 lb (13.6 kg) bag

Colors
White

Approximate Coverage
30 lb (13.6 kg) bag

<table>
<thead>
<tr>
<th>Trowel Size</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 – 47</td>
<td>3.7 – 4.4</td>
</tr>
<tr>
<td>Adhered Masonry Veneer Application Method</td>
<td>30 – 35</td>
<td>2.8 – 3.2</td>
</tr>
</tbody>
</table>

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 thin brick, masonry veneer, stone, ceramic tile and pavers, are not replacements for waterproofing membranes or air and water barriers. When a waterproofing membrane or air and water barriers is required, use MVIS Air & Water Barrier (see Section 10 FILING SYSTEM).
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Not for use directly over OSB, particle board, interior glue plywood, luau, Masonite® or hardwood floors.
- Not for use over VAT, VCT, cutback adhesive, vinyl and plastic laminates.
- Not for use in submerged applications. For these applications, use MVIS™ Hi-Bond Veneer Mortar
- Use LATAPOXY® 300 Adhesive for installing green marble, resin backed on water sensitive tile, stone and agglomerates (refer to DS 633.0 for more information)

Suitable Substrates
- Cement Mortar
- Masonry And Brick
- Exterior Glue Plywood*
- Concrete

Data Sheets are subject to change without notice. For latest revision, visit www.laticrete.com

DS-060.1-0817
Cautions
Consult SDS for more safety information.
- Some marbles and other stones have low flexural strength and might not be suitable for installation over wood floors.
- Protect finished work from traffic until fully cured.
- Contains portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- DO NOT take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing 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
Applicable Standard
ANSI A118.4, ANSI A118.15, ANSI A118.11

Physical Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>ANSI A118.15 Specification</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porcelain Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.2.2: 24 hrs</td>
<td>100 psi</td>
<td>220-250 psi</td>
</tr>
<tr>
<td></td>
<td>(0.6 MPa)</td>
<td>(1.5-1.7 MPa)</td>
</tr>
<tr>
<td>Porcelain Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.2.3: 7 days</td>
<td>300 psi</td>
<td>460-500 psi</td>
</tr>
<tr>
<td></td>
<td>(2.0 MPa)</td>
<td>(3.2-3.4 MPa)</td>
</tr>
<tr>
<td>Porcelain Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.2.4: 7d Water Immersion</td>
<td>200 psi</td>
<td>270-300 psi</td>
</tr>
<tr>
<td></td>
<td>(1.3 MPa)</td>
<td>(1.9-2.1 MPa)</td>
</tr>
<tr>
<td>Porcelain Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.2.5: 28 days</td>
<td>400 psi</td>
<td>420-470 psi</td>
</tr>
<tr>
<td></td>
<td>(2.7 MPa)</td>
<td>(2.9-3.2 MPa)</td>
</tr>
<tr>
<td>Quarry Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.3.2: 28 days</td>
<td>150 psi</td>
<td>320-340 psi</td>
</tr>
<tr>
<td></td>
<td>(1.0 MPa)</td>
<td>(2.2-2.3 MPa)</td>
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<tr>
<td>Wall Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.1.2: 7 days</td>
<td>450 psi</td>
<td>480-500 psi</td>
</tr>
<tr>
<td></td>
<td>(3.1 MPa)</td>
<td>(3.3-3.4 MPa)</td>
</tr>
<tr>
<td>Wall Tile Shear Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSI A118.15 7.1.3: 7d Water Immersion</td>
<td>250 psi</td>
<td>270-300 psi</td>
</tr>
<tr>
<td></td>
<td>(1.7 MPa)</td>
<td>(1.9-2.1 MPa)</td>
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<tr>
<td>Sag</td>
<td>&lt;0.50 mm</td>
<td>0 mm</td>
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<tr>
<td>Open Time: 20 minutes at 28 days</td>
<td>75 psi</td>
<td>140-180 psi</td>
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<tr>
<td>ANSI A118.15 5.5</td>
<td>(0.5 MPa)</td>
<td>(1 – 1.2 MPa)</td>
</tr>
<tr>
<td>Open Time: 30 minutes at 28 days</td>
<td>75 psi</td>
<td>75-85 psi</td>
</tr>
<tr>
<td>ANSI A118.15 5.3</td>
<td>(0.5 MPa)</td>
<td>(0.5-0.6 MPa)</td>
</tr>
</tbody>
</table>

Working Properties

| Pot Life                          | 4 hours                    |
| Time To Traffic                   | 24 hours                   |

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

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. New concrete slabs shall be damp cured and 28 days old before application. All slabs must be plumb and true to within 1/4" (6 mm) in 10 ft (3 m). Expansion joints shall be provided through the masonry from all construction or expansion joints in the substrate. 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.

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, including concentrated loads, must not exceed L/600 where L=span length.

When Using PERMACOLOR® Select Color Kits
Mixing with PERMACOLOR Select Color Kits (MVIS LIGHTWEIGHT MORTAR)
Requires two (2) PERMACOLOR Select Color Kits. (Each Color Kit contains two (2) individual color packets, use all four (4) color packets). Place water in a clean mixing container. Remove color packets from the cardboard container as well as the protective plastic sleeve. The internal bag is a water dispersible packet – when using the 30 lbs. (13.6kg) bag of MVIS LIGHTWEIGHT MORTAR, drop all color packs directly in to water in clean mixing container. Mix with a drill mixer until pigment is dispersed evenly in container and the dispersible packet is no longer visible. Add MVIS LIGHTWEIGHT MORTAR and mix as directed above.

Please note that additional water may be necessary when using PERMACOLOR Select color Kits.

For Wall and Large and Heavy Stone Application
Place 4.6 – 4.8 qts (4.4 – 4.5 L) of clean water in a pail and slowly add the entire bag of MVIS LIGHTWEIGHT Mortar. Mix with slow speed mixer for one minute. DO NOT temper with water. Allow to slake for 5 minutes, remix and use.

For Thin Bed Applications
Place 5.0 – 5.2 qts (4.8 – 4.9 L) of clean water in a pail and slowly add the entire bag of MVIS LIGHTWEIGHT Mortar. Mix with slow speed mixer for one minute or until a creamy smooth consistency is reached. Allow to slake for 5 minutes, remix and use.
Application
Walls
See applicable LATICRETE® details in LATICRETE 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 waterproofing membrane or MVIS LIGHTWEIGHT Mortar. If waterproofing is required, install MVIS Air & Water Barrier per instructions (see Data sheet DS 663.0 and DS 663.5) to the substrate prior to installation of MVIS LIGHTWEIGHT Mortar.

For adhered stone, thin brick and manufactured stone masonry veneer installations, use a gauging trowel to key a thin coat of MVIS LIGHTWEIGHT Mortar to cover entire back of the veneer unit. Spread additional mortar onto the back of the skim coated veneer unit 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" (25 mm) 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 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.

For thin brick, tile, calcium silicate unit and stone installations key MVIS™ LIGHTWEIGHT 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) or 1/2" x 1/2" (12 mm x 12 mm) loop or notch trowel. Back butter all thin brick, tile and stone veneers 8" x 8" (200 mm x 200 mm) or larger to provide full bedding of the veneer. Place veneer into the mortar and adjust to desired position. Clean any excess mortar between veneers or sides of stone or tile veneer.

Note: Use proper sized notched trowel to ensure full bedding of the veneer. Spread only enough mortar that can be covered with tile within 15–20 minutes. Adjust as necessary. Check mortar for complete coverage by periodically removing veneer units and inspecting the transfer onto the back of the tile. The size and weight of the veneer will vary. Conduct a small test area for non-sag performance. 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
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 with water.

6. AVAILABILITY AND COST
Availability
LATICRETE® and LATAPOXY® 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 www.laticrete.com.

Cost
Contact a LATICRETE Distributor in your area.

7. WARRANTY
See 10. FILING SYSTEM

A component of:

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 250.0: LATICRETE 25 Year System Warranty (United States and Canada)

8. MAINTENANCE
LATICRETE and LATAPOXY grouts and pointing mortars require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY 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. 235
Telephone: +1.203.393.0010, ext. 235
Fax: +1.203.393.1948

Technical and Safety Literature
To acquire technical and safety literature, please visit our website at www.laticrete.com.

10. FILING SYSTEM
Additional product information is available on our website at www.laticrete.com. The following is a list of related documents:

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<thead>
<tr>
<th>DS Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>230.13</td>
<td>LATICRETE Product Warranty</td>
</tr>
<tr>
<td>230.15</td>
<td>LATICRETE 15 Year System Warranty – For Steel or Wood Framed Exterior Facades (United States and Canada)</td>
</tr>
<tr>
<td>250.0</td>
<td>LATICRETE 25 Year System Warranty (United States and Canada)</td>
</tr>
<tr>
<td>228.0</td>
<td>MVIS™ Pointing Mortar</td>
</tr>
<tr>
<td>274.0</td>
<td>MVIS Premium Pointing Mortar</td>
</tr>
<tr>
<td>633.0</td>
<td>LATAPOXY 300 Adhesive</td>
</tr>
<tr>
<td>661.0</td>
<td>MVIS Air &amp; Water Barrier</td>
</tr>
<tr>
<td>002.8</td>
<td>LATICRETE Masonry Veneer Installation System Brochure</td>
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