



# MVIS™ Lightweight Mortar

DS-60.1-0522

**Globally Proven  
Construction Solutions**



## 1. PRODUCT NAME

MVIS™ Lightweight Mortar

## 2. MANUFACTURER

LATICRETE International, Inc.

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## 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.

### Uses

- 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.
- Bonds to many suitable substrates
- Exceeds ANSI A118.4, A118.11 & A118.15 Requirements
- Unique color options are now available in all LATICRETE® grout colors when mixed with PERMACOLOR® Select Color Kits\*

### Suitable Substrates

- Concrete

- Concrete Block
- Existing Ceramic Tile and Stone
- CMU
- Existing Tile Or Stone
- Cement Terrazzo
- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use)
- Exterior Glue Plywood (Interior use only, non-wet areas)
- Gypsum Plaster (Interior use only, non-wet areas)
- Gypsum Wallboard (Interior use only, non-wet areas)

### Packaging

- 30 lb (13.6 kg) bag

White

### Colors

### Approximate Coverage

30 lb (13.6 kg) bag

| Trowel Size                                | ft <sup>2</sup> | m <sup>2</sup> |
|--|-----------------|----------------|
| 1/4" x 3/8" (6 mm x 9 mm) notched trowel   | 60 - 70         | 5.6 - 6.5      |
| 1/2" x 1/2" (12 mm x 12 mm) notched trowel | 40 - 47         | 3.7 - 4.4      |
| Adhered Masonry Veneer Application Method  | 30 - 35         | 2.8 - 3.2      |

### 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, luan, 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)

#### 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. Causes severe skin burns and eye damage. Wear protective gloves, 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



#### Applicable Standard

- ANSI A118.4
- ANSI A118.15
- ANSI A118.11

#### Physical Properties

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

#### Working Properties

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

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.

#### 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 veneers 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 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://laticrete.com)

### **Cost**

Contact a LATICRETE Distributor in your area.

## **7. WARRANTY**

See 10. FILING SYSTEM:

- DS 230.10: 10 Year System Warranty
- DS 230.15APD: LATICRETE 15 Year Tile & Stone System Warranty
- DS 025.0: 25 Year System Warranty

## **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. 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://laticrete.com).

## **10. FILING SYSTEM**

Additional product information is available on our website at [laticrete.com](http://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)
- DS 228.0: MVIS™ Pointing Mortar
- DS 274.0: MVIS Premium Pointing Mortar
- DS 633.0: LATAPOXY 300 Adhesive
- DS 661.0: MVIS Air & Water Barrier
- DS 002.8: LATICRETE Masonry Veneer Installation System Brochure

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