



# 3701 Mortar Admix

DS-231.0-0314

**Globally Proven  
Construction Solutions**



## 1. PRODUCT NAME

3701 Mortar Admix

## 2. MANUFACTURER

LATICRETE International, Inc.  
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## 3. PRODUCT DESCRIPTION

3701 Mortar Admix is a specially designed latex admixture for use with thin-set mortars, cement grouts, cement mortar beds, and other cement mixes.

### Uses

Used in place of water, 3701 Mortar Admix improves the working and physical properties of any cement mix and provides an economical and easy way to make permanent, trouble-free installations of ceramic tile, brick and natural stone.

### Advantages

- Interior and exterior installations
- Shock, chemical and frost resistant
- Increased bond and compressive strength
- Water resistant; suitable for submerged applications
- Superior flexibility
- "Extra Heavy Service" rating per TCNA performance levels (RE: ASTM C627 Robinson Floor Test)

### Suitable Substrates

- Concrete
- Cement mortar beds
- Ceramic tile and stone
- Cement backer board\*
- Gypsum wallboard (interior only)
- Cement plaster
- Brick masonry
- Cement terrazzo
- Concrete masonry

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

### Packaging

5 US gallon (19 ℓ) pail; 36 pails per pallet.

### Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for five (5) years\*\* if stored at temperatures >32°F (0°C) and <110°F (43°C).

\*\* High humidity will reduce the shelf life of bagged product.

### Limitations

- Not for use as a thin-set mortar additive over exterior glue plywood.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Use LATAPOXY® 300 Adhesive for installing green marble or water sensitive stone and agglomerates and resin backed tile and stone.
- Use a white thin-set mortar when installing white or light-colored stone.
- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use a LATICRETE® Waterproofing Membrane (see Section 10 FILING SYSTEMS).

*Note: Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes. Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/360 for thin bed ceramic tile/brick installations or L/480 for thin bed stone installations where L=span length (except where local building codes specify more stringent deflection requirements)*

## Cautions

Consult MSDS for more safety information.

- During cold weather, protect finished work from traffic until fully cured.
- Wait 14 days after the final grouting period before filing water features with water at 70°F (21°C).
- 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 < 0.02 lb/gal (<2.39 g/l).

### Applicable Standards

Conforms to ANSI A-118.4

### Performance Properties

3701 Mortar Admix mixed with 226 Thick Bed Mortar

Test/Test Method	Results
Water Absorption, ANSI A118.6-4.4	< 5%
Compressive Strength, ANSI A118.4-6.1	4000-5000 psi (33.8-34.5 MPa)
TCA Service Rating ASTM C-627	Extra Heavy

3701 Mortar Admix mixed with 272 Mortar

Test	Test Method	Results	ANSI A118.4 Specification
Porcelain Tile Shear Bond 28 day cure	ANSI A118.4-5.2.4	450-500 psi (3.1-3.4 MPa)	> 200 psi (1.37 MPa)
Porcelain Tile Water Soak Shear Bond	ANSI A118.4-5.2.3	200-300 psi (1.37-2.07 MPa)	> 150 psi (1 MPa)
Compressive Strength	ANSI A118.4-6.0	2300-2500 psi (15.8-17.2 MPa)	> 2500 psi (17.2 MPa)

Data from Report HR880

### Working Properties

3701 Mortar Admix mixed with 226 Thick Bed Mortar (70°F [21°C])

Pot Life	1 hour
Time to Foot Traffic	12 hours
Time to Heavy Traffic	72 hours
Wet Density	135 lbs/ft <sup>3</sup> (2166 kg/m <sup>3</sup> )

3701 Mortar Admix mixed with 272 Mortar (70°F [21°C])

Open Time	1 hour
Pot Life	5 hours
Time to Heavy Traffic	24 hours
Wet Density	107 lbs/ft <sup>3</sup> (1720 kg/m <sup>3</sup> )

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will vary depending upon 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 Latex Portland Cement Underlayment to provide a wood float (or better) finish. Dry, dusty concrete slabs or masonry should be dampened and excess water swept off. Installation may be made on a damp surface.

*Note: Latex portland cement mortars do not require a minimum cure time for cement slabs. 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 tile work 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.*

### Mixing

Stir 3701 Mortar Admix thoroughly before use.

### Application

#### Mortar Bed

##### Mixing Mortar Bed—Dry Pack Consistency for floors

Mix a 60 lb bag (27 kg) of 226 Thick Bed Mortar to 0.7 gal (2.7 l) of 3701 Mortar Admix. Five (5) gallons (19 l) of 3701 Mortar Admix mixes with approximately 7 bags of 226 Thick Bed Mortar, yielding approximately 45 ft<sup>2</sup> (4 m<sup>2</sup>) at 1" (25 mm) thick. Mix to a stiff, semi-dry consistency (refer to bag for mixing hints). Mix ratio may vary dependent upon weight of finish.

##### Bonded Mortar Bed—Installation

Before placing mortar, apply a slurry bond coat made from 254 Platinum or 4237 Latex Additive mixed with 211 Powder. While the slurry bond coat is wet, spread the mortar and compact well. If placing tile immediately, apply a slurry bond coat, made from either 254 Platinum or 4237 Latex Additive mixed with 211 Powder to the mortar. While the slurry bond coat is wet and sticky, place the tile and beat in well. Refer to TDS 143 "Slurry Bond Coats – When & Where to Use" for more information on slurry bond coats.

##### Unbonded Mortar Bed—Installation

Before placing mortar, place a cleavage membrane (e.g. 4 mil thick polyethylene sheeting or 15 lbs, builder felt) on the substrate. Place mortar over the cleavage membrane (approximately 1/2 the depth of the mortar bed). Next, place 2" x 2" (50 mm x 50 mm), 16 gauge galvanized welded wire mesh over the mortar. Then, place the balance of the mortar bed. The wire mesh should be suspended in the middle of the mortar bed. Spread the mortar and compact well. Minimum mortar bed thickness shall be 2" (50 mm). If placing tile

immediately, apply a slurry bond coat, made from either 254 Platinum or 4237 Latex Additive mixed with 211 Powder to the mortar. While the slurry bond coat is wet and sticky, place the tile and beat in well.

*Note: A slurry bond coat should also be applied to the edges of mortar beds installed from previous work periods.*

## **Application**

### **Wall Renders**

#### **Mixing Wall Renders**

Mix a 60 lb bag (27 kg) of 226 Thick Bed Mortar to 1 gal (3.8 ℓ) of 3701 Mortar Admix. Five (5) gallons (19 ℓ) of 3701 Mortar Admix mixes with approximately 5 bags of 226 Thick Bed Mortar, yielding approximately 64 ft<sup>2</sup> (5.8 m<sup>2</sup>) at 1/2" (12 mm) thick. Mix to a plastic consistency.

#### **Wall Renders—Installation**

No slurry bond coat is required prior to placing wall renders. Apply wall render with a steel trowel pressing mortar into good contact with the substrate. Apply "scratch coat" first – not to exceed 1/2" (12 mm) thickness. Scratch mortar before it hardens. After "scratch coat" hardens, apply the "brown or float coat" working the mortar into good contact with the scratch coat. Do not exceed 5/8" (15 mm) thickness per lift. Scratch all lifts that will receive additional float coats. Float wall with steel trowel and straight edges to form a plumb and true mortar surface. Allow the completed render coats to cure for 24 hours at 70°F (21° C) prior to the installation of tile.

## **Application**

### **Concrete Repair and Resurfacing—Leveling Mortar Consistency Mixing Leveling Mortars**

Mix a 60 lb bag (27 kg) of 226 Thick Bed Mortar to 1 gal (3.8 ℓ) of 3701 Mortar Admix. Five (5) gallons (19 ℓ) of 3701 Mortar Admix mixes with approximately 5 bags of 226 Thick Bed Mortar, yielding approximately 64 ft<sup>2</sup> (5.8 m<sup>2</sup>) at 1/2" (12 mm) thick. Mix to a plastic consistency. Mix ratio may vary dependent upon weight of finish.

#### **Concrete Repair and Resurfacing—Installation**

Before placing mortar, apply a slurry bond coat made from 254 Platinum or 4237 Latex Additive mixed with 211 Powder.

Apply a slurry bond coat to all reinforcing steel and existing clean, sound and stable concrete surfaces just prior to placing the mortar. While the slurry bond coat is wet and sticky place the topping mortar. Compact the surface of the mortar with a flat trowel and ensure all voids are filled. Avoid over troweling.

## **Application**

### **Thin-Set Mortar**

#### **Mixing As a Thin-Set Additive**

Use approximately 1.5–1.75 gallons (5.7–6.6 ℓ) of 3701 Mortar Admix to a 50 lbs (22.7 kg) of Thin-Set Mortar. Place 3701 Mortar Admix in a clean plastic pail. Do not dilute. Add Thin-Set Mortar to 3701 Mortar Admix and mix to a smooth, trowelable consistency. Allow mortar to slake for 5 – 10 minutes. Adjust consistency if necessary. Remix and apply with the proper sized notched trowel.

## **Installation**

Apply mortar to the substrate with the flat side of the trowel, pressing firmly to work into surface. Comb on additional mortar with the notched side.

*Note: Use the proper sized notched trowel to ensure full bedding of the tile. Spread as much mortar as can be covered with tile in 15–20 minutes. Back butter large tiles >8" x 8" (>200 x 200 mm) to provide full bedding and firm support. Place tiles into wet, sticky mortar and beat in using a beating block and rubber mallet to embed tile and adjust level. Check mortar for complete coverage by periodically removing a tile and inspecting bedding mortar transfer onto back of tile. If mortar is skinned over (not sticky), remove and replace with fresh mortar.*

## **Application**

### **Grout Mixing As a Grout Additive**

Use approximately 1/2 gallon (1.9 ℓ) of 3701 Mortar Admix to 25 lbs (11.3 kg) of 1500 Sanded Grout. Add 1500 Sanded Grout to 3701 Mortar Admix and mix to a smooth, stiff consistency. Use 3701 Mortar Admix full strength for exterior applications; dilute 1/1 with clean water for interior use.

## **Installation**

Before starting to grout remove spacers and debris in grout joints and remove dust and dirt using a wet sponge. Do not leave water standing in joints. Apply grout release or sealer if necessary. Refer to TDS 400 "LATICRETE® Grout Guide" for more information on grouting. Grout installation after a minimum of 24 hours curing time at 70°F (21°C). Dampen tile surface with water. Spread with a sharp, firm rubber grout float. Work the grout paste into the joints until completely filled. Use diagonal strokes to pack the joints. Ensure that joint is filled and the grout is not just sitting on top (i.e. "bridging the joint").

**Cold Weather Note:** The setting of portland cement mortars and grouts are retarded by low temperatures. Protect finished work for an extended period when installing in cold weather.

For faster setting mortar use Thin-Sets with 101 Rapid Latex Admix. Do not set tile when surface temperature is below freezing or when substrate is frozen.

**Hot Weather Note:** The evaporation of moisture in portland cement mortars is accelerated by hot, dry conditions. Apply to dampened surfaces and protect freshly spread mortar and finished work when installing in temperatures over 90°F (32°C).

## **Cleaning**

### **Mortar**

Clean tools and tile work with water while mortar is fresh.

### **Grout Primary Cleaning**

Remove excess grout from the face of the tiles with the edge of the grout float. Hold the float at a 90° angle and pull it diagonally across the joints and tile to avoid pulling out the material.

### **Grout Secondary Cleaning**

Remove remaining grout with a damp sponge (not wet) or a damp towel. Work diagonally to the joints. Allow to dry. When the grout joints are firm polish the surface with a coarse nylon pad or coarse cloth and minimal water.

*Note: Use caution when polishing soft glazed tiles or polished stone.*

## 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](http://www.laticrete.com).

### Cost

Contact a LATICRETE Distributor in your area.

## 7. WARRANTY

See 10. FILING SYSTEM

DS 230.13: LATICRETE Product Warranty (United States and Canada)

## 8. MAINTENANCE

LATICRETE and LATAPOXY materials are premium quality construction products requiring no maintenance to ensure performance. For aesthetic/hygienic reasons, LATICRETE and LATAPOXY grouts can be routinely cleaned with soap and water.

## 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](http://www.laticrete.com).

## 10. FILING SYSTEM

Additional product information is available on our website at [www.laticrete.com](http://www.laticrete.com). The following is a list of related documents:

DS 230.13: LATICRETE Product Warranty (United States and Canada)

DS 230.1: 4237 Latex Additive

DS 236.0: 9235 Waterproofing Membrane

DS 239.0: 211 Powder

DS 239.1: 226 Thick Bed Mortar

DS 256.0: 1500 Sanded Grout

DS 259.0: 272 Mortar

DS 264.0: 101 Rapid Latex Admix

DS 633.0: LATAPOXY 300 Adhesive

DS 663.0: HYDRO BAN®

DS 677.0: 254 Platinum

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