



3701 Fortified Mortar Bed

DS-100-0823

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

3701 Fortified Mortar Bed

2. MANUFACTURER

LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION

3701 Fortified Mortar is a polymer fortified blend of carefully selected polymers, portland cement and graded aggregates. 3701 Fortified Mortar does not require the use of latex admix, you only need to add water to produce thick bed mortar with exceptional strength. 3701 Fortified Mortar is an approved substitute for 226 Thick Bed Mortar mixed with 3701 Mortar Admix.

Uses

- Interior and exterior applications
- Wet and dry applications
- Bonded and non-bonded thick bed mortar applications
- Conventional thick bed mortar applications
- Concrete repairs

Advantages

- Polymer fortified – no need for latex additives
- Premixed – no job site blending of powders required
- Consistent results
- High strength formula
- Pumpable for large scale veneer projects
- Exceeds ASTM C270 requirements
- For use as a scratch or finish coat in place of Type S or Type N mortar

- Excellent for ramping and pitching - can be used in a bonded mortar bed assembly with a slurry bond coat of LATICRETE 254 Platinum down to a feather edge

Suitable Substrates

- Concrete
- Ceramic Tile and Stone
- Concrete Masonry
- Brick Masonry
- Cement Mortar Bed
- Cement Plaster
- Cement Terrazzo
- Exterior Glue Plywood (For interior only, minimum 2" (50 mm) over cleavage membrane with wire reinforcing)
- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use)

Packaging

60 lb (27.2 kg) bag; 56 bags per pallet
Part number: 0229-0060-21

Approximate Coverage

12 ft ² at 1/2" (1.1 m ² at 12 mm)
6 ft ² at 1" thickness (0.56 m ² at 25 mm)
3 ft ² at 2" (0.3 m ² at 50 mm)

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years.

Limitations

- Use LATAPOXY® 300 Adhesive for installing green marble or moisture sensitive stone, agglomerates, and resin backed tile or stone.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- 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 SDS for more safety information.
- Protect finished work from traffic until fully cured.
- Allow a minimum 14 day cure at 70°F (21°C) after the final grouting period prior to filling water features with water.
- Contains cement and silica sand. Causes 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.
- 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.

Applicable Standard

- ASTM C270

Physical Properties

Water Absorption ANSI A118.7.3.4	<5%
Compressive Strength ASTM C270	28 Day = 5000 to 6000 psi (34.5 to 41.4 MPa)
Flexural Strength ANSI A118.7.3.5	28 Day = 1100 to 1200 psi (7.5 to 8.3 MPa)
Shrinkage 7 Day Cure ASTM C-157	0.05%
TCNA Service Rating ASTM C-627	Extra Heavy
Installed Dry Weight	144 lbs./ft ³

Working Properties

Initial Set	4 to 6 hours
Final Set	8 to 10 hours
Pot Life	2 hours
Time to Foot Traffic	12 hours
Time to Heavy Traffic	48 hours
Time to Liquid Applied Membrane	72 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, laitance, paint, concrete sealers or curing compounds. Dry dusty concrete slabs or masonry should be dampened and excess water swept off. Installation may be made on a damp surface. 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.

Application

• Mortar Bed

Mixing Mortar Bed—Dry Pack Consistency for Floors:

Mix a 60 lb bag (27.2 kg) of 3701 Fortified Mortar with 2 – 3.2 quarts (1.9 – 3 L) of water for 2 to 3 minutes. Mix to a stiff, semi-dry consistency. Allow to slake for 5 minutes. Remix for another 2 to 3 minutes without adding any water or powder.

Bonded Mortar Bed—Installation: Before placing mortar, apply a slurry bond coat made from 254 Platinum. While the slurry bond coat is wet, spread the mortar and compact well. If placing tile immediately, apply a slurry bond coat, made from 254 Platinum in 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 & What 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 lb, 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 254 Platinum to the mortar. While the slurry bond coat is wet and sticky, place the tile and beat in well.

- **Wall Renders**

Mixing Wall Renders: Mix a 60 lb bag (27.2 kg) of 3701 Fortified Mortar with 3.2 – 3.6 quarts (3 – 3.4L) of water for 2 to 3 minutes. Mix to a plastic consistency. Allow to slake for 5 minutes. Remix for another 2 to 3 minutes without adding any water or powder.

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.

- **As a Pumped Mortar for Renders and**

Plaster: Pumping of 3701 Fortified Mortar should be done when using a liquid plasticizer/pump aid. Confirm with manufacturer of pump aid for compatibility with polymer fortified mortar mixes. Approximate coverage for 7 – 60 lb. (27.2 kg) bags of mortar will be 45 ft² (4.2 m²) at 1" (25 mm) thick. Coverage will vary according to mixing, pumping, placement, job site conditions and rebound. Do not exceed 5/8" (15 mm) thickness per lift/application of pumped render. Scratch up previous lift prior to placing subsequent lifts.

- **Concrete Repair**

Concrete Repair and Resurfacing – Leveling Mortar Consistency – Mix a 60 lb bag (27.2 kg) of 3701 Fortified Mortar with 3.2 – 3.6 quarts (3 – 3.4L) of water for 2 to 3 minutes. Mix to a plastic consistency. Allow to slake for 5 minutes. Remix for another 2 to 3 minutes without adding any water or powder.

- **Concrete Repair and Resurfacing –**

Installation: Before placing mortar, apply a slurry bond coat made from 254 Platinum. 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.

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

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

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

- **Cleaning**

Clean tools and tile work with water while the 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

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

- 1 Year Product Warranty (US - English)
- 5 Year System Warranty (US - English)
- 10 Year System Warranty (US - English)
- 25 Year System Warranty (US - English)
- LATICRETE Lifetime System Warranty (US - English)
- 15 Year MVIS System Warranty for Steel or Wood Framed Exterior Facades (US - English)

8. MAINTENANCE

LATICRETE and LATAPOXY grouts 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.

10. FILING SYSTEM

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

- DS 230.13: LATICRETE Product Warranty
- DS 230.05: LATICRETE 5 Year System Warranty (United States and Canada)
- 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 230.99: LATICRETE Lifetime System Warranty
- DS 236.0: 9235 Waterproofing Membrane
- DS 633.0: LATAPOXY 300 Adhesive
- DS 663.0: HYDRO BAN®
- DS 677.0: 254 Platinum
- TDS 143: Slurry Bond Coats When & What to Use

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