



3701 Fortified Mortar Bed

DS-100.0-0611



1. PRODUCT NAME

LATICRETE® 3701 Fortified Mortar Bed

2. MANUFACTURER

LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION

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

Suitable Substrates

- Concrete
- Ceramic tile & stone
- Concrete masonry
- Brick masonry
- Exterior glue plywood*

- Cement mortar beds
- Cement backer board**
- Cement plaster
- Cement terrazzo

* For interior only, over cleavage membrane with wire reinforcing min. 2" (50 mm) thick

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

Packaging

60 lb (27.3 kg) bag; 56 bags per pallet

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 if stored at temperatures >32°F (0°C) and <110°F (43°C).

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 MSDS for more safety information.

- During cold weather, 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 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.
- Keep out of reach of children.

4. TECHNICAL DATA

Applicable Standards

ASTM C270

Physical Properties

Water Absorption ANSI A118.7.3.4	5%
28 Day Compressive Strength ASTM C270	4000–5000 psi (27.6–34.5 MPa)
Flexural Strength ANSI A118.7.3.5	1100–1200 psi (7.5–8.3 MPa)
Shrinkage 7 Day Cure ASTM C-157	0.05%
TCNA Service Rating ASTM C-627	Extra Heavy

Working Properties

Pot Life	2 hours
Time to Foot Traffic	16 hours
Time to Heavy Traffic	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 kg) of LATICRETE® 3701 Fortified Mortar Bed to 0.7–0.8 gal (2.6–3 ℓ) of water. Mix to a stiff, semi-dry consistency. Mix ratio may vary dependent upon weight of finish.

Bonded Mortar Bed—Installation

Before placing mortar, apply a slurry bond coat made from LATICRETE® 254 Platinum or LATICRETE 4237 Latex Additive mixed with LATICRETE 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 LATICRETE 254 Platinum or LATICRETE 4237 Latex Additive mixed with LATICRETE 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 & 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 either LATICRETE 254 Platinum or LATICRETE 4237 Latex Additive mixed with LATICRETE 211 Powder 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 kg) of LATICRETE 3701 Fortified Mortar Bed to 0.8 – 0.9 (3 – 3.4ℓ) of water. 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.

As a Pumped Mortar for Renders and Plaster

Pumping of LATICRETE 3701 Fortified Mortar Bed 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. (27.3 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.

Application

Concrete Repair and Resurfacing – Leveling Mortar Consistency
Mixing Leveling Mortars Mix a 60 lb bag (27.3 kg) of LATICRETE 3701 Fortified Mortar Bed to 0.8 – 0.9 (3 – 3.4ℓ) of water. 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 LATICRETE 254 Platinum or LATICRETE 4237 Latex Additive mixed with LATICRETE 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.

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.

Hot Weather Note

The evaporation of moisture in portland 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 and LATAPOXY® materials are available worldwide.

For Distributor information:

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:

DS 230.13: LATICRETE® Product Warranty

A component of:

DS 230.05: LATICRETE 5 Year System Warranty

DS 230.15APD: LATICRETE 15 Year System Warranty – APD
(For Steel or Wood Framed Exterior Facades)

DS 025.0APD: LATICRETE 25 Year System Warranty – APD

DS 230.99: LATICRETE Lifetime System Warranty

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 (hours 8:00 AM to 5:30 PM EST):

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:

DS 230.13: LATICRETE Product Warranty

DS 230.05: LATICRETE 5 Year System Warranty

DS 230.15APD: LATICRETE 15 Year System Warranty – APD
(For Steel or Wood Framed Exterior Facades)

DS 025.0APD: LATICRETE 25 Year System Warranty – APD

DS 230.99: LATICRETE Lifetime System Warranty

DS 236.0: LATICRETE 9235 Waterproofing Membrane

DS 230.1: LATICRETE 4237 Latex Additive

DS 239.0: LATICRETE 211 Powder

DS 677.0: LATICRETE 254 Platinum

DS 633.0: LATAPOXY 300 Adhesive

DS 663.0: LATICRETE Hydro Ban™

TDS 143: Slurry Bond Coats When & What to Use

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