

# **3701 MORTAR ADMIX**

DS-2310-0124

## Globally Proven Construction Solutions



#### 1. PRODUCT NAME 3701 MORTAR ADMIX

## 2. MANUFACTURER

LATICRETE Europe S.r.l. a socio unico Via Paletti, snc, 41051 Castelnuovo Rangone MO, Italy Telephone: +39 059 535540 Email: info@laticreteeurope.com Website: laticrete.eu

## **3. PRODUCT DESCRIPTION**

3701 MORTAR ADMIX is a specialty multipurpose latex admixture designed to fortify any cement based mix, such as cement tile adhesives, cement grouts, cement mortar beds, screeds and other cement mixes.

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.

#### Uses

- Interior and exterior installations
- Can be mixed with 211 POWDER or neat cement for use as a slurry bond coat.
- Can be used in place of water for renders or screeds such as 2261 SCREED.
- Can be used as part of the LATAFLOAT System, with the fibre-reinforced cement-based LATAFLOAT 250

MORTAR and a synthetic fabric mesh (EN 13813: CT C20 F6)

• Can be used with 315 PLUS tile adhesive to improve performance (S1 or S2 depending on mix ratio)

#### Advantages

- Water resistant suitable for submerged applications
- Shock, chemical and frost resistant
- · Increased bond and compressive strength
- Superior flexibility
- Greenguard certified low VOC emissions, better indoor air quality
- "Extra Heavy Service" rating per ASTM C627 Robinson Floor Test

#### Suitable Substrates

- Concrete
- Cement Mortar Bed
- Ceramic Tile and Stone
- Cement Plaster
- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use)
- Gypsum Wallboard (Interior use only, non-wet areas)
- Brick Masonry
- Concrete Masonry
- Cement Terrazzo

#### Packaging

20 kg per pail; 36 pails per pallet

#### 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

- NOT for use as a thin-set mortar additive over exterior glue plywood.
- NOT for use with PERMACOLOR<sup>®</sup> SELECT GROUT, COLORBASE FS or COLORBASE FL, as these grouts are already modified.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.

- Use LATAPOXY<sup>®</sup> 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<sup>®</sup>
  Waterproofing Membrane.

Note: Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes.

## 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**

Total VOC Content pounds/gallon (grams/liter) of product in unused form is < 0.02 lb/gal (<2.39 g/ $\ell$ ).

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**

- EN 13813 CT-C20-F6\*
- EN 12004 C2 TE S1\*\*
- EN 12004 C2 TE S2\*\*\*
- ISO 9001:2015 Quality Management System

\*when mixed with LATAFLOAT 250 MORTAR \*\*when used diluted 1:1 with water to mix LATICRETE tile adhesives

\*\*\*when used in place of water to mix LATICRETE tile adhesives

#### **Physical Properties**

3701 MORTAR ADMIX mixed with LATAFLOAT 250 MORTAR			
Classification EN 13813:	CT C20-F6		
Reaction to Fire:	F		
Basis:	Cement, aggregates, additives		
Colour:	Grey		
Apparent Density:	1400 kg/m3		
Maximum Grain Size:	1,0 mm		
	Value	Test Method	
Compressive Strength (7 days):	12 N/mm²	EN 13892-2	
Compressive Strength (28 days):	22 N/mm <sup>2</sup>	EN 13892-2	
Flexural Strength (28 days):	6 N/mm²	EN 13892-2	
Temperature Resistance:	From -30°C to +90°C		

### **Working Properties**

3701 MORTAR ADMIX mixed with LATAFLOAT 250 MORTAR			
Consistency:	Thixotropic mortar		
Wet Density:	1630 kg/m³		
Mix Ratio:	4,0 kg latex per 25 kg bag		
Application Temperature:	From +5°C to +35°C		
Working Time:	30 - 45 minutes		
Minimum Thickness:	1 cm		
Maximum Thickness:	5 cm		
Time to Foot Traffic:	6 - 8 hours		
Time to Tile Installation	2 - 3 days*		
Time to Marble / Stone Installation:	7 days**		
Time to Parquet & Resinous Finish Installation:	7 days***		
Final Hardening:	28 days		

(at 23°C / 50% RH)

\*subject to residual moisture check <6%

\*\*subject to residual moisture check <3%

\*\*\*subject to residual moisture check <2%

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 5°C and 35°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 should be plumb and true to within 6 mm in 3 m.

Expansion joints shall be provided through the tile work from all construction or expansion joints in the substrate. Follow local requirements or specifications, such as UNI 11493-1:2016, 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.

#### Applications

- Refer to relevant sections below for:
- Application for LATAFLOAT SYSTEM
- Application for Mortar Beds & Screeds (Dry Pack Consistency for Floors)
- Application for Wall Renders
- Application for Concrete Repair and Resurfacing Leveling Mortar Consistency
- Application for LATICRETE Tile Adhesive Mortars
- Application as a Cement Grout Additive

#### **Application for LATAFLOAT SYSTEM**

Mix a 25 kg bag of LATAFLOAT 250 MORTAR to 4 kg of 3701 MORTAR ADMIX. One pail of 3701 MORTAR ADMIX (20 kg each) mixes with approximately 5 bags of LATAFLOAT 250 MORTAR (25 kg each). Use a rotating paddle drum mixer. Pour latex admixture into clean container and mix with a rotating paddle drum mixer, gradually adding the remaining powder while mixing. Once all powder has been added, mix for an additional 3-5 minutes. Scrape sides to ensure any loose powder is captured, mix for an additional 2 minutes until a smooth, homogeneous mixture is obtained. Mortar should be semi-fluid and malleable.

Prior to placing mortar, apply a spacer / spacing strip of compressible foam around the perimeter of the room and against all restraining surfaces. Roll out and position the LATAFLOAT MAT with nylon facing upwards and keep the mat away from perimeter walls by 1 cm. Secure the LATAFLOAT MAT with screws, nails, or LATICRETE cement or epoxy adhesive. *For parquet and resinous flooring, install the screed anchor to the substrate. Use LATICRETE cement or epoxy adhesive.* 

Pour the mixed fresh mortar over the LATAFLOAT MAT, spreading and ensuring full coverage, then level and smooth. Screed thickness can range from 1 cm to 5 cm.

- Tile & Stone Finishes: After application, wait approximately 2-3 days before installing tile and 7 days before installing stone (at 23° C and 50% R.H.). Use LATICRETE cement tile adhesive for installation.
- Parquet & Resinous Finishes: Wait approximately 5-6 days after application before installing parquet, resinous, and other moisture-sensitive finishes (at 23° C and 50% R.H.).

Note: the above wait times are approximate. Consult finished floor manufacturer and/or adhesive manufacturer for recommendations.

#### Application for Mortar Beds & Screeds (Dry Pack Consistency for Floors)

Mix 3701 MORTAR ADMIX with sand and cement mix in place 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 a C2 mortar, such as 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 with C2 mortar, 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) on the substrate. Place mortar over the cleavage membrane (approximately 1/2 the depth of the mortar bed). Next, place 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 50 mm. If placing tile immediately, apply a slurry bond coat, made from a C2 mortar, such as 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 for Wall Renders

Mix sand cement mix with 3701 MORTAR ADMIX, using latex admix in place of water. Mix to a plastic consistency.

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

For finish installation:

"scratch coat" first – not to exceed 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 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 21° C prior to the installation of tile.

## Application for Concrete Repair and Resurfacing — Leveling Mortar Consistency

Mix sand cement mix with 3701 MORTAR ADMIX, using latex admix in place of water. Mix to a plastic consistency. Mix ratio may vary dependent upon weight of finish.

Before placing mortar, apply a slurry bond coat made from C2 mortar, such as 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 for LATICRETE Tile Adhesive Mortars

Use 3701 MORTAR ADMIX with Tile Adhesive Mortars, as identified in *Uses* section. Place 3701 MORTAR ADMIX in a clean plastic pail, using below mix ratios:

- For EN 12004 S1, use 3701 MORTAR ADMIX diluted 1:1 with water, as per the suggested tile adhesive mix ratio.
- For EN 12004 S2, use 3701 MORTAR ADMIX pure, in place of water, as per the suggested tile adhesive mix ratio.

## Refer to adhesive product data sheets for details on suggested mix ratio.

Add Tile Adhesive 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.

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  $>8" \times 8"$  (>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 as a Cement Grout Additive

Use 3701 MORTAR ADMIX in place of water or diluted with water with Cement Grouts. Use 3701 MORTAR ADMIX pure, at full strength, for exterior applications; dilute 1:1 with clean water for interior use. Add Cement Grout to 3701 MORTAR ADMIX and mix to a smooth, stiff consistency.

Note: Do not use 3701 MORTAR ADMIX with modified grouts, such as PERMACOLOR<sup>®</sup> SELECT GROUT, COLORBASE FS or COLORBASE FL.

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 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. 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 32°C.

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 45° 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<sup>®</sup> materials are available worldwide. For distributor information, please contact LATICRETE Europe S.r.l. a socio unico:

+39 059 535540 info@laticreteeurope.com

For on-line distributor information, visit www.laticrete.eu.

#### Cost

Contact LATICRETE Europe S.r.l. a socio unico to obtain complete information and cost.

#### 7. WARRANTY

The supplier warrants that the product will not deteriorate under normal conditions and use. The warranty validity of one (1) year. Contact Technical Services for further information. See 10. FILING SYSTEM:

• DS 230.13EU: 1 Year Product Warranty

#### 8. MAINTENANCE

LATICRETE<sup>®</sup> and LATAPOXY<sup>®</sup> are products of high quality designed to achieve lasting installations and avoid maintenance, however performance and durability may depend on properly maintaining products, depending of the cleaning products used.

### 9. TECHNICAL SERVICES

#### **Technical Assistance**

Information is available by calling or emailing the Technical Service Hotline:

+39 059 535540 technicalservices@laticreteeurope.com

#### **Technical and Safety Literature**

To obtain technical and safety literature, please visit our website at <u>www.laticrete.eu</u>.

#### Warning

The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE<sup>®</sup> is unable to directly control the installation methods and conditions of products and does not assume any liability arising from their implementation. Those who want to use LATICRETE<sup>®</sup> products should conduct adequate tests to determine the site specifications. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation method and site conditions.

LATICRETE<sup>®</sup> products are covered by a warranty within the limits of what is established by our general conditions of sale and within the limits of correspondence related to technical specifications and applicable certifications, as expressly indicated in the product data sheets, documentation, or applicable technical documentation.

#### **10. FILING SYSTEM**

Additional product information is available on our website at <u>laticrete.eu</u>.