3701 Mortar Admix

3701 Mortar Admix is a specially designed latex admixture for use with LATICRETE 226 Thick Bed Mortar, thin-set adhesives^, cement grouts, cement mortar beds and other cement mixes.

Globally Proven Construction Solutions

Location: Sydney Light Rail, Sydney, NSW

FEATURES/BENEFITS

- Interior and exterior installations.
- Shock, impact, chemical and frost resistant.
- Improves the bond and compressive strength of mortars
- Can be used from feather-edge to desired thickness.
- Water resistant, suitable for immersed installations.
- Imparts superior flexibility.
- "Extra Heavy Service" rating per TCNA performance levels when mixed with LATICRETE 226 Thick Bed Mortar. (Re: ASTM C627 Robinson Floor Test).

SUITABLE SUBSTRATES

- Concrete
- Cement mortar beds
- Ceramic tile and stone
- Cement backer board*
- 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

- 20 litre pail; 32 pails per pallet

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.

MANUFACTURER

LATICRETE Australia Pty Ltd
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^Do not use wth highly modified adhesives like LATICRETE 254 or LATICRETE 335

Appoximate Coverage

(Based on 20kg bag)

- 1m² at 10mm thick
- 2m² at 5mm thick

Shelf Life

Factory sealed containers of 3701 Mortar Admix are guaranteed to be of first quality for five (5) year if stored at temperatures >0°C and <43°C.

Limitations

- Not for use as a thin-set adhesive additive over exterior glue plywood.
- 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 adhesive when installing white or light-coloured stone.
- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproof membranes. When a waterproof membrane is required, use a LATICRETE Waterproof Membrane.
- **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.

Cautions

Consult SDS for more safety information.

- During cold weather, protect finished work from traffic until fully cured
- Wait 14 days after the final grouting before filling water features with water at 21°C
- Keep out of reach of children.

TECHNICAL DATA

VOC Product Information

Green Building Council of Australia Green Star Office Design. VOC: 13 grams/Litre

Performance Properties

3701 Mortar Admix mixed with LATICRETE 226 Thick Bed Mortar
As per ANSI A118.4.

Test	Test method	Results
Water Absorption	A118.6-4.4	<5%
Compressive Strength	A118.4-6.1	33.8 – 34.5 MPa
TCA Service Rating	ASTM C-627	Extra Heavy

Working Properties at 21°C

Pot Life	1 hour
Time to Foot Traffic	12 hours
Time to Heavy Traffic	72 hours
Wet Density (as a render)	2010 kg/m³

Performance Properties

3701 Mortar Admix mixed with Ultra X8 Polymer Fortified Flexible Adhesive meets and exceeds the requirements of AS ISO 13007 as a C2TES1

INSTALLATIONS

Note: Latex Portland cement mortars do not require a minimum cure time for cement slabs. Consider any additional shrinkage movement when installing over green concrete and cement based finishes. Expansion joints shall be provided through all bedding and tile work from all dynamic construction or expansion joints in the substrate. Follow Australian Standard requirements for Expansion Joints in AS3958.1 Section 5.4.5 & AS3958.2 Section 4.5 or TCNA detail EJ-171 "Movement Joints - Vertical & Horizontal". Do not cover expansion joints with mortar.

When using wet plaster type mixes for wall or levelling bed application to horizontal surfaces, do not apply greater than 15mm per lift after an initial first coat of 12mm. Scratch and allow to dry between lifts or coats.

Where bonded semi-dry mortar beds are greater than 50mm in thickness, install wire mesh as outlined in the **Unbonded Mortar Bed** section below. Alternatively, install mortar bed in multiple layers less than 50mm thick. Scratch and allow to dry in between layers. Slurry bond coats are required between layers.

Do not allow slurry bond coats to skin or dry out; re-apply fresh slurry bond coat over skinned or dried bond coat before applying fresh mortar. Do not apply slurry bond coats to areas that are not going to be immediately covered. See TDS 1009 for more information.

Preparation

All surfaces should be between 4°C and 32°C and structurally sound, clean and free of all laitance, dirt, oil, grease, loose peeling paint, concrete sealers, curing compounds or anything that may inhibit bond. Dry, dusty concrete slabs or masonry should be dampened and excess water swept off. Installation may be made on a damp surface.

Mixing

Stir 3701 Mortar Admix thoroughly before use. For best results and economy of admix, semi-dry mixes are best when mixed in a forced blade, static drum type mixer. Wetter, plaster type mixes are best when mixed in a rotating drum mixer. Do not mix semi-dry mixes in a rotating drum mixer.

Application

Mortar Bed

Mixing Mortar Bed: Dry Pack Consistency for floors

Mix 20 kgs of LATICRETE 226 Thick Bed Mortar with approximately 1.7 – 1.9 Litres of 3701 Mortar Admix. Adjust liquid to achieve the desired consistency as site conditions and effects of the slurry bond coat can alter the mix consistency during the laying process. Mix to an easily compactable, semi-dry consistancy that holds its shape and presents with a slight sheen to the surface. Mix only what can be used within the pot life of the mortar. Do not allow the mix to dry out.

Bonded Mortar Bed: Installation

Pre-Screed before tile or paver installation - Immediately before placing fresh mortar, apply and work into the surface, a nominal 1 – 2mm thick slurry bond coat made of 335 Premium Flexible Adhesive or other specified bond coats to the prepared substrate. Whilst the bond coat is still wet and tacky, spread and screed the mortar mix over the bond coat and compact well as the work progresses. Finish with a wood float to the required surface tolerances, falls and levels. Allow to dry for the application of membranes or tile.

Wet-Bed installation - In the case where tiles or pavers are to be beaten into a fresh, plastic semi-dry mortar bed that has been applied over the slurry bond coat as above; screed to the desired levels and falls, and compact. Float the surface flat and tight with a surcharge or mortar (additional mortar to account for the compaction in the beating and bedding process). Then apply a nominally 2mm thick slurry bond coat to the surface of the of the plastic mortar bed (only to the area that will immediately recieve tile or paver) with the flat edge of the trowel. While the slurry bond coat is wet and tacky, place the tile and beat in well to the correct level and alignment.

Unbonded Mortar Bed

Installation

Before placing mortar, install a cleavage membrane, e.g. 200 μm polyethylene sheeting, lapped and taped on the substrate. Place, screed and compact the mortar over the cleavage membrane (approximately 1/2 the depth of the mortar bed). Next place 25 mm x 25 mm to 75 mm x 50 mm, 1.2 mm to 2 mm diameter galvanized welded wire mesh over the 1/2 depth mortar bed, lapping the mesh as required. Then, place, compact and screed the remainder of the mortar bed. The wire mesh should be suspended in the middle of the mortar bed and 200mm laps exposed where adjoining mortar beds are to be installed later. Finish as required. Minimum mortar bed thickness shall be 40 mm. In the case where tiles are to be beaten into a wet and plastic mix as the work progresses and after the second layer of the mortar bed has been applied over the mesh; follow the process outlined in the **Wet-Bed installation** section above.

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 20 kg of 226 Thick Bed Mortar to 2.4 – 2.5 litres of 3701 Mortar Additive. 20 litres of 3701 Mortar Admix mixes with 8 bags of 226 Thick Bed Mortar, yielding approximately 8 m² at 10 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 prepared substrate. Apply "scratch coat" first – not to exceed 12 mm thickness. Scratch mortar before it hardens. After "scratch coat" hardens, apply the "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

Concrete Repair & Patching: Semi-dry Mortar Consistency

Mixing Patching Mortars

Mix 20 kg of 226 Thick Bed Mortar to 1.8 – 2 litres of 3701 Mortar Admix. Mix should be pliable and able to pack voids without slumping.

Concrete Repair & Patching:

Immediately before placing fresh mortar, apply and work into the surface, a nominal 1 – 2mm thick slurry bond coat made of 335 Premium Flexible Adhesive or other specified bond coats to the prepared substrate. Whilst the bond coat is still wet and tacky, pack the mortar into the repair taking care to compact the mortar and leave no voids. Some repairs may need to be packed in stages. Scratch and allow to dry between stages. Reapply slurry bond coat between stages. Consult LATICRETE for information on treating exposed steel in immersed installations.

Application

Thin-Set Mortar

Mixing as a Thin-Set Additive

Use approximately 5 litres of 3701 Mortar Admix to 20 kg of Ultra X8 Polymer Fortified Flexible Adhesive. Place 3701 Mortar Admix in a clean plastic pail. Do not dilute. Add LATICRETE Thin-Set Adhesive to 3701 Mortar Admix and mix to a smooth, trowelable consistency. Allow adhesive to slake for 5 – 10 minutes. Adjust consistency if necessary. Remix and apply with the proper sized notched trowel. Can be used with most non-modified or partially-modified thin-set adhesives, check individual thin-set adhesive bag for cautions and limitations. 3701 Mortar Admix can be used with 315 Super Floor & Wall Adhesive also.

Installation

Apply adhesive to the substrate with the flat side of the trowel, pressing firmly to work into surface. Comb on additional adhesive with the notched side. **Note:** Use the proper sized notched trowel to ensure full bedding of the tile. Spread only as much adhesive as can be covered with tile in 10 – 15 minutes. Back butter large tiles >200 mm x 200 mm to provide full bedding and firm support. Place tiles into wet, sticky adhesive and beat in using a beating block and rubber mallet to embed tile and adjust level. Check adhesive for complete coverage by periodically removing a tile and inspecting bedding adhesive transfer onto back of tile. If adhesive is skinned over (not sticky), remove and replace with fresh adhesive.

Application

Grout Mixing

As a Grout Additive

2.5 - 2.7 L of 3701 Mortar Admix to a 20 kg bag of LATICRETE 226 for a coarse quarry grout suitable for wide joints.

Use 3701 Mortar Admix full strength for exterior applications or dilute 1:1 with potable water. May be used as a grout additive with non-modified grouts.

Installation

Generally, allow tile adhesives and bedding to dry for 24 hours at 21°C before grouting. Remove spacers, debris, excessive adhesive or anything that may inhibit a full joint before grouting. Clean down tiles and wipe with a wet sponge prior to grouting. Hydrate dry and hot tile bedding or adhesive. Do not leave water standing in joints. Check if tile may benefit from a grout release sealer.

Only apply as much grout as can be worked with given the current site conditions. Do not spread out too much grout in hot conditions. 'Do not let grout dry on the surface of the tile."

Spread grout with a sharp, firm rubber grout float. Work the grout paste into the joints until completely filled. Use diagonal strokes to pack and remove excess grout from the joints. Ensure that the joint is filled and the grout is not just sitting on the top, i.e. "bridging the joint".

Grout Primary Cleaning

Remove excess grout from the face of the tiles with the edge of the grout float. Hold the float at 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 glaze tiles or polished stone.

Do not allow grout to dry on the face of the tile particularly when full strength 3701 Mortar Admix is used in grouts.

Cold Weather Note

The setting of Portland cement adhesives, mortars and grouts are retarded by low temperatures. Protect finished work for an extended period when installing in cold weather.

For faster setting adhesive use LATICRETE® 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 adhesives and 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.

Cleaning

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

AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY® materials are available worldwide.

For Distributor information:
Toll Free: 1800 331 012
Telephone: 07 3865 1599

For online distributor information, visit LATICRETE at **www.laticrete.com.au**

Cost
Contact a LATICRETE Distributor in your area.

MAINTENANCE

LATICRETE and LATAPOXY grouts require routine cleaning with a neutral pH detergent and water. All stone and tiles should be maintained and sealed with STONETECH® products as appropriate for the specific tile / stone and installation situation.

All other LATICRETE and LATAPOXY materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

TECHNICAL SERVICES

Technical assistance

Information is available by calling:

Toll Free: 1800 331 012
Telephone: 07 3865 1599
Fax: 07 3865 2250

Technical and safety literature

To acquire technical and safety literature, please visit our website at **www.laticrete.com.au**

DISCLAIMER

- The information contained in this document is given in good faith and to the best of our knowledge is true and accurate.
- This information is subject to change without notice and it is the responsibility of the user to obtain up to date and current information.
- The use of this product is beyond our control and liability is assumed by the user when used incorrectly and not in accordance with LATICRETE guidelines.
- Efflorescence is a normal condition of Portland cement and is not covered by any warranty. The use of LATAPOXY 310 Stone Adhesive, LATAPOXY 300 Adhesive, SPECTRALOCK® PRO Premium Grout† and SPECTRALOCK 2000 IG will not contribute to any noticeable efflorescence.

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† United States Patent No.: 6,881,768 (and other Patents).