

1. PRODUCT NAME

LATICRETE® 280 Floor Thin-Set Mortar

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

LATICRETE 280 Floor Thin Set Mortar is an economical bagged cementitious powder to be mixed with either water or latex admixture to install ceramic tile and natural stone using the thin-set method of installation. Must fortify with LATICRETE 333 Super Flexible Additive or LATICRETE 3701 Mortar Admix for exterior use, impervious tiles, porcelain, mosaic, glass and stone tiles, cement backer board and heavy traffic areas.

Uses

Designed for use with large format tiles, it is formulated for high build and to reduce lippage.

Suitable Substrates

- Concrete
- Ceramic Tile & Stone*
- Concrete Masonry
- Brick Masonry
- Exterior Grade Plywood (Interior Only)**
- Cement Mortar Beds
- Cement Backer Board***
- Cement Plaster
- Cement Terrazzo*

*When mixed with LATICRETE 3701Mortar Admixture.

**When mixed with LATICRETE 333 Super Flexible Mortar Additive.

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

Packaging - 20 kg bags, Color: Grey

Coverage

Approximately 6 – 8 m ² per 20kg bag with 6x6mm trowel
Approximately 5 – 6 m ² per 20kg bag with 6x9mm trowel

Shelf Life - Factory sealed containers of this product are guaranteed to be of first quality for one (1) year* if stored off the ground in a dry area.

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

Limitations

- Not for walls
- For installations over plywood use with LATICRETE 333 Super Flexible Mortar Additive.
- Industry standards recommend the use of latex Additive for exterior installations. Use LATICRETE 3701 Mortar Admix for best results.
- Use LATAPOXY 300 Epoxy Adhesive for installing green marble or water sensitive natural stone and agglomerates.

- Adhesives/mastics, mortars and grouts for ceramic tile, pavers brick and stone are not designed as replacements for waterproof membranes. When a waterproof membrane is required, use a LATICRETE Waterproof Membrane.
- For Exterior use, fortify with LATICRETE 333 Super Flexible additive or LATICRETE 3701 Mortar Mix.
- 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

- 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.
- Protect finished work from traffic or damage by other trades for an extended period of time during cold weather conditions. At room temperature conditions 20°C, protect overnight.
- Keep out of reach of children.

4. TECHNICAL DATA

Applicable Standard

- ANSI A118.1 – 1999
- ANSI A118.4 - 1999

Performance Properties

LATICRETE 280 mixed with LATICRETE 3701 Mortar Admix

Test	Test Method	Results
Shear Bond Porcelain Tile, 28 day cure	ANSI A118.4-1992; F-5.2.4	2.4 MPa
Shear Bond Porcelain Tile, Water immersion	ANSI A118.4-1992; F-5.2.3	1.7 MPa
Water Absorption	ANSI A118.6 - 1992 H-4.4	4% max.
Compressive Strength	ANSI A118.4-1992; F-6.1	22.8 MPa
TCA Service Rating	ASTM C-627	Extra Heavy

LATICRETE 280 Floor Thin-Set Mortar mixed with Water

Test	Test Method	Results
Shear Bond Porcelain Tile, 28 day cure	ANSI A118.1-1992; C-5.2.4	1.6 MPa
Shear Bond Porcelain Tile, Water immersion	ANSI A118.1-1992; C-5.2.3	1 MPa
Shear Bond, Water Absorption	ANSI A118.6-1992; H-4.4	14%
Compressive Strength	ANSI A118.4-1992; F-6.1 (modified)	13.8 MPa

Working Properties 21°C

LATICRETE 280 Floor Thin-Set Mortar Mixed with 3701 Mortar Admix

Open Time	35 minutes
Pot Life	4hours
Time to Heavy Traffic	24 hours
Wet Density	1800 kg/m ³

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 4°C and 32°C and structurally sound, clean and free of all dirt, oil, grease, loose peeling paint, laitance, concrete sealers or curing compounds. Rough or uneven concrete surfaces should be made smooth with LATICRETE 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. New concrete slabs shall be damp cured and 28 days old before application. All slabs must be plumb and true to within 6mm in 3m. Expansion joints shall be provided through the tile work from all construction or expansion joints in the substrate. Follow Australian Standards. Do not cover expansion joints with mortar.

1. Installer must verify that deflection under all live, dead and impact loads of interior plywood floors does not exceed industry standards of L/360 for ceramic tile and brick or L/480 for stone installations where L=span length;

2. **DO NOT** bond to particle board, luan, Masonite® or hardwood surfaces. **For green and moisture sensitive marbles, use LATAPOXY® 300 Epoxy Adhesive, refer to Data Sheet 633.0.**

Mixing - Stir LATICRETE admix thoroughly before use.

Place clean, potable water or a LATICRETE latex admix into a clean pail. Add LATICRETE 280 powder. Use approximately 5-6.7Litres of water for 20 kg of powder. **Note: For improved bond strength, flexibility and for exterior installations use LATICRETE 3701 Mortar Admix. FOR INTERIOR INSTALLATIONS TO PLYWOOD USE LATICRETE 333 Super Flexible Mortar Additive. For rapid "Open to Traffic" installations use LATICRETE 101 Rapid Set Latex Mortar Admix.** Mix by hand or with a slow speed mixer 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.

Application

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 insure full bedding of the tile. Spread as much mortar as can be covered with tile in 15-20 minutes. Back butter large tiles > 200 x 200 to provide full bedding and firm support. Place tiles into wet, sticky mortar and beat in using a beating block and rubber mallet to imbed 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.

Grouting

Grout installation after a minimum of 24 hours curing time at 21°C. Grout with LATICRETE Sanded or Unsanded Grout mixed with LATICRETE 1776 Grout Admix Plus. For maximum stain resistance use LATAPOXY SpectraLock Pro Grout.

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 LATICRETE Thin-Sets with LATICRETE 101 Rapid Set Latex Admixture. 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 35°C.

Cleaning

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

6. AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY® materials are available worldwide. For distributor information, call:

Toll Free: 1800331012

Telephone: 03 99336111

For on-line distributor information, visit LATICRETE at www.LATICRETE.com.

Cost

Contact a LATICRETE/LATAPOXY Distributor in your area.

7. WARRANTY

LATICRETE International, Inc. warrants that LATICRETE® 280 Floor Thin-Set Mortar is free from manufacturing defects and will not break down, deteriorate or disintegrate under normal usage for a period of one (1) year from date of purchase subject to the LATICRETE Product 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.