



**For the Builders
of a Better World™**

316 Cementitious Adhesive

316 Cementitious Adhesive is a bagged cementitious powder. It is mixed with either water or latex admixture for installing ceramic tile and stone using the thin-set method of installation. 316 Cementitious Adhesive must be fortified with LATICRETE Mortar Admix for exterior use, porcelain, mosaic, glass and stone tiles, and heavy traffic areas.



FEATURES/BENEFITS

- Smooth, easy to trowel formula.
- Dual purpose, for walls and floors.
- Suitable for both wall and floor application.

USES

Designed for floors and walls, interior and exterior applications.

MANUFACTURER/ DISTRIBUTED BY

LATICRETE South East Asia Pte Ltd
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STANDARDS/CERTIFICATIONS

- BS EN 12004
- ANSI A118



This product has been certified green by the Singapore Green Building Council.

Suitable Substrates

- Concrete*
- Cement mortar beds
- Concrete masonry
- Cement plaster
- Brick masonry
- Cement terrazzo
- Drywall board**
- Ceramic tile and stone***
- Cement backer board****

* To add with latex

** Consult Laticrete Technical Services for more information.

*** When mixed with 3701 Mortar Admix

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

Packaging

25kg bag, 80 bags per pallet.

Colour

Default Grey and White

Coverage

25kg of 316 Cementitious Adhesive mixed with clean water will yield a coverage of 6.5-7.5m² with 6mm x 6mm square notch 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, at temperatures $\geq 0^{\circ}\text{C}$ to $\leq 40^{\circ}\text{C}$.

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

Limitations

- For light-colored finishes, use 316 Cementitious Adhesive in white.
- Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not designed as replacements for waterproofing membranes. When a waterproofing barrier is required, use a LATICRETE Waterproofing Membrane.
- For exterior use, fortify with LATICRETE Mortar Admix.
- 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.
- DO NOT bond to particle board, luan, Masonite® or hardwood surfaces
- For installations in submerged applications, mix with LATICRETE Mortar Admix. Wait 14 days after the final grouting period before filing water features with water at 21°C.

Cautions

Consult MSDS for more safety information.

- Protect finished work from traffic or damage by other trades for an extended period of time during cold weather conditions.
- At room temperature conditions, protect overnight.
- 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.
- Use a white mortar for white and light colored marble and stone.
- Use LATAPOXY® 300 Adhesive for installing green marble, water sensitive stone and agglomerates and resin backed tiles and stones.
- Keep out of reach of children.

TECHNICAL DATA

Performance Properties

316 Cementitious Adhesive when mixed with water

Test	Test Method	Results
Tensile Adhesion Bond Strength (28 days)	BS EN 12004	$\geq 1.0 \text{ N/mm}^2$
Tensile Adhesion Bond Strength after Heat Ageing (28 days)	BS EN 12004	$\geq 0.5 \text{ N/mm}^2$
Tensile Adhesion Bond Strength after Water Immersion (28 days)	BS EN 12004	$\geq 0.5 \text{ N/mm}^2$
Shear Bond Strength (28 days)	ANSI A118	$\geq 1.0 \text{ MPa}$
Open Time (30 mins)	BS EN 12004	$\geq 0.5 \text{ N/mm}^2$

Working Properties

316 Cementitious Adhesive when mixed with water

Open Time (25°C)	20 minutes
Pot Life (25°C)	2 hours
Time to Light Traffic	24 hours

Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

INSTALLATION

Surface Preparation

All surfaces should be between 5°C and 40°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 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.

Note: Latex portland cement mortars do not require a minimum cure time for concrete slabs. 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 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.

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. Minimum construction for interior plywood floors.
SUBFLOOR: 15 mm thick exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced 400 mm o.c. maximum.

Fasten plywood 150mm o.c. along sheet ends and 200mm o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 3mm between sheet ends and 6mm between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.

UNDERLAYMENT: 15mm thick exterior glue plywood fastened 150mm o.c. along sheet ends and 200mm o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 3 mm to 6 mm between sheets and 6 mm between sheet edges and any abutting surfaces; offset underlayment joints from joints in subfloor and stagger joints between sheet ends; glue underlayment to subfloor with construction adhesive. Refer to Technical Data Sheet 152 "Bonding Ceramic Tile, Stone or Brick Over Wood Floors" for complete details.

Mixing

Place clean, potable water or LATICRETE latex admix into a clean pail. Add 316 Cementitious Adhesive. Use approximately 5.75ℓ - 6.25ℓ of water for 25kg of powder. **Please do not mix other aggregates such as cement or sand etc to 316 Cementitious Adhesive.**

Note: For improved bond strength, flexibility and for exterior installations, add with LATICRETE Mortar Admix. For rapid "Open to Traffic" installations use 101R Rapid Latex Admix. Mix by hand or with a slow speed mixer to a smooth, trowelable consistency. Allow mortar to slake for 3–5 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 ensure full bedding of the tile. Spread as much mortar as can be covered with tile in 15–20 minutes. Back butter large tiles >300 mm x 300 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.

Cleaning

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

AVAILABILITY AND COST

Availability

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

Telephone: (65) 6515-3028

Fax: (65) 6515-3037

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

Cost

Contact a LATICRETE Distributor in your area.

WARRANTY

LATICRETE South East Asia Pte Ltd warrants that 316 Cementitious Adhesive 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 terms and conditions stated.

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.

TECHNICAL SERVICES/ CONTACT

Technical Assistance

Information is available by calling:

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Technical and safety literature

To acquire technical and safety literature, please visit our website at se.laticrete.com

Disclaimer

LATICRETE is not responsible for product use beyond its intended application. Liability is limited to replacing defective materials. We are not responsible for any loss or damage resulting from improper use. Product specifications are subject to change without notice. For the most up-to-date information, please visit our website at se.laticrete.com.