



LATAPOXY® 310 Rapid Stone Adhesive

DS-679.3-1216

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

LATAPOXY® 310 Rapid Stone Adhesive

2. MANUFACTURER

LATICRETE International, Inc.

1 LATICRETE Park North

Bethany, CT 06524-3423 USA

Telephone: +1.203.393.0010, ext. 235

Toll Free: 1.800.243.4788, ext. 235

Fax: +1.203.393.1684

Internet: www.laticrete.com

3. PRODUCT DESCRIPTION

LATAPOXY 310 Rapid Stone Adhesive is a fast setting two component, high strength epoxy adhesive, which is formulated for the spot bonding of tile and stone installations on vertical surfaces. LATAPOXY 310 Rapid Stone Adhesive maintains its non-sag consistency at high temperatures up to 95°F (35°C).

Uses

- Spot bonding marble, granite, adhered masonry veneer and large format ceramic tile on walls and overheads, interior or exterior applications.
- Ideal for fireplace surrounds, elevators and stair risers.
- Adhesive for bedding and fastening marble, granite and other stone slabs on walls and wainscoting.
- Adhesive for fabricating granite, marble and other stone.
- Approved by TCNA for Interior applications method W215 and W260

Advantages

- Fast Permanent Bond—5–8 minutes.

- Easy to Use—1:1 mixing ratio by volume.
- Non-Staining—ideal for white and light colored—marbles, other stones and tiles.
- Withstands shock and vibration.
- Durable Permanent Bond—will not deteriorate over time.
- Safe—no solvents.
- Non-Sag—when applied up to 1" (25 mm) thick.
- Approved by the following building code bodies for exterior installations: ICC and IBC.

Acceptable Substrates

Please consult LATICRETE Technical Services at 1.800.243.4788, ext. 230 for specific installation details.

Interior Substrates

- Concrete
- Concrete masonry units (CMU)
- Brick/masonry
- Exterior glue plywood*
- Cement backer board*
- Steel**

* Consult cement backer board manufacturer for specific installation recommendations.

**Steel surface must be cleaned to remove oil, dust oxidation and other bond inhibiting materials.

‡Fire-treated, marine grade or other chemically treated plywood panels are not acceptable substrates.

Exterior Substrates

Please consult LATICRETE Technical Services at 1.800.243.4788, ext. 235 for approval prior to use for all exterior applications. There is a maximum height restriction of 30 ft (9.1 m). For exterior installations outside of North America, contact the LATICRETE International Department at 1.800.243.4788, ext. 242.

- Concrete
 - Must be minimum 6" (150 mm) thick reinforced
 - Must be minimum 3500 psi (24 MPa)
 - Must be minimum 28 days old prior to installation
- CMU
 - Double wythe walls only

Packaging

- Mini Unit—2 gal (8 L) units packed in one carton.
 - 8 mini jars of Part A, 0.5 QT (0.5 L)
 - 8 mini jars of Part B, 0.5 QT (0.5 L),
 - 40 cartons per pallet, Available in standard and rapid versions
- Full Unit—2.6 gal (10 L) All components packed in one carton
 - 1.3 gal (5 L) Part A pail
 - 1.3 gal (5 L) Part B pail,
 - 40 cartons per pallet, Available in standard and rapid versions.

- Commercial Unit—2.6 gal (10 L) each Part A and Part B pails
- Cartridge Packs—2.3 gal (9 L) For use in LATAPOXY 310 Cordless Mixer:
 - 15 x 20oz (600 mL) cartridge packs of Part A and Part B per carton, 27 cartons per pallet. Available in standard and rapid version.

Cartridge Pack Coverage

One carton (15 cartridges) will yield approximately 150 ft² (14 m²) with 1/4" (6 mm) thick dabs, or 300 ft² (27 m²) with 1/8" (3 mm) thick dabs when covering 10% of the veneer surface.

Coverage

The coverage for LATAPOXY® 310 Rapid Stone Adhesive will vary depending upon the amount of product required to plumb the wall. The chart below is based on 10% coverage of the area of each tile or stone piece:

Average Inches Out of Plumb	LATAPOXY® 310 Thickness	Approx. Coverage/ 10 Liter Unit
Plumb Wall	1/8" Thick (3 mm)	300–325 ft ² (27–30 m ²)
1/4" (6 mm)	1/4" Thick (6 mm)	150–170 ft ² (14–16 m ²)
1/2" (12 mm)	1/2" Thick (12 mm)	75–80 ft ² (7–7.5 m ²)

Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at >32°F (0°C) to <110°F (43°C).

Limitations

- Surface temperature for application: 50°F (10°C)–95°F (35°C).
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Sandstone, slate and fissile stones are not recommended veneers and should not be used with LATAPOXY 310 Rapid Stone Adhesive. These stones and other porous stones may delaminate or break apart due to the nature of their porous and layered composition.
- 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 or L/600 for exterior veneers where L=span length (except where local building codes specify more stringent deflection requirements)
- DO NOT bond to particle board, luan, fire-retardant plywood, marine grade plywood, Masonite®, any chemically treated plywood or hardwood surfaces.

Cautions

Consult MSDS for more safety information.

- Keep out of reach of children.
- LATAPOXY 310 Rapid Stone Adhesive has a slight, non-hazardous odor.
- During cold weather, protect finished work from traffic until fully cured.
- LATAPOXY 310 Rapid Stone Adhesive Part A is corrosive to eyes and skin before curing. Avoid contact with eyes or

prolonged contact with skin. In case of contact, flush thoroughly with water.

- Consult local building code for requirements.

4. TECHNICAL DATA

Physical Properties

Test	Test Method	Results	Specification
14 day Marble to Concrete Shear Strength	ANSI A118.3 5.5 ^A	>950 psi (6.5 MPa) ^{^^}	N/A
Compressive Strength	ANSI A118.3 5.6	8900–9400 psi (61.4–64.8 MPa)	>3500 psi (24.1 MPa)
Tensile Strength	ANSI A118.3 5.7	1300–2000 psi (9–13.7 MPa)	>1000 psi (6.9 MPa)
Thermal Shock	ANSI A118.3 5.8 ^{^^^}	1100–1600 psi (7.6–11 MPa)	>500 psi (3.45 MPa)

Data From TCA-179-01

^A modified

^{^^} tile failure

^{^^^} modified to use porcelain tile

Test	Test Method	ISO 13007-1 R2 Specification	Results
7 day cure shear adhesive strength	ISO 13007-2 4.3.4	2 MPa (290 psi)	18 – 33 MPa (2610–4785 psi)
7 day cure 21 day water immersion shear adhesive strength	ISO 13007-2 4.3.5	2 MPa (290 psi)	14–34 MPa (2030–4930 psi)
7 day cure 4 100°C boiling water cycles shear adhesive strength	ISO 13007-2 4.3.8	2 MPa (290 psi)	22–36 MPa (3190–5220 psi)
Open time after 20 minutes	ISO 13007-2 4.1	0.5 MPa (73 psi)	2.8–3.8 MPa (406–551 psi)
Slip	ISO 13007-2 4.2	Less than or equal to 0.5 mm (0.02 in)	0.1–0.3 mm (0.0039–0.012 in)
Transverse deformation	ISO 13007-2 4.5	Greater than or equal to 2.5 mm (0.1 in) and less than 5 mm (0.2 in)	3.2–3.6 mm (0.13–0.14 in.)

5. INSTALLATION

Preparation

Before using, store resins at room temperature >70°F (>21°C) for 24 hours to ensure ease of mixing. All surfaces must be sound, clean, free of oil, waxes, frost, curing agents, form release agents or other bond inhibiting contaminants. All substrates must be clean and dry when applying LATAPOXY 310 Rapid Stone Adhesive. Expansion joints shall be provided through the tile work from all construction or expansion joints in the substrate. Follow ANSI specification AN-3.8 "Requirements for Expansion Joints" or TCA Detail EJ171—Current Year "Expansion Joints". **DO NOT** cover expansion joints with mortar. Finished veneers equipped with any type of resin, mesh, epoxy or fiberglass backing must be ground in those areas to receive LATAPOXY 310 Rapid Stone Adhesive.

Clean and grind back of stone in areas to receive the LATAPOXY® 310 Rapid Stone Adhesive spots using a mechanical wheel grinder with a diamond wheel/blade. Remove dust with a stiff brush and wipe entire surface. Using a damp sponge (not wet), wipe the tile or stone to remove any particles or remaining dust to ensure a clean direct bond and that all ground material is removed. Wipe dry with a clean cloth, then apply LATAPOXY 310 Rapid Stone Adhesive.

Recommended Guidelines for Spot Bonding Stone:

(Please consult your Local Code for actual code compliance)

1. Interior Stone Tile Applications
 - Thickness – units shall not exceed 2" (50mm).
 - Module Weight – 20 lb/ft² (73 kg/m²) unless otherwise approved by project engineer.
2. Porcelain Tile (exterior)
 - Thickness – units shall not exceed 5/8" (16mm).
 - Facial Dimensions – maximum of 432 in² (0.28m²) and no greater than 24" (610mm) along any edge or dimension.
 - Module Weight – 9 lb/ft² (44.2 kg/m²) unless otherwise approved by project engineer.
3. Exterior Stone or Interior Tile Applications
 - Thickness – units shall not exceed 2" (50mm)
 - Facial Dimensions – maximum of 720 in² (0.46m²) and in great than 36" (915mm) along any edge or dimension.
 - Module Weight – 15 lb/ft² (73 kg/m²) unless otherwise approved by project engineer.
 - Height – No more than 30 ft (9.1 m)

Note: Always check with the tile or stone manufacturer to make sure the tile or stone is suitable for wall installations.

Mixing

Combine equal volumes of LATAPOXY 310 Rapid Stone Adhesive Part A and Part B (1:1 mix ratio by volume). Mix until uniform in color; no swirls. Mix only as much as can be used in 3–5 minutes. Small quantities can be mixed with a putty knife or margin trowel. Cartridge packs are designed for use only with the LATAPOXY 310 Cordless Mixer and must be at least 65°F (18°C) for proper mixing and dispensing.

Application

Apply dabs evenly distributed on back of the stone or tile; 5 dabs minimum, 1 in each corner and 1 in center. Cover at least 10% of the area of each piece. Finished dab thickness must be a minimum of 1/8" (3 mm) and a maximum of 1" (25 mm).

Approximate dab diameter required to achieve 10% coverage with 5 dabs:

Tile Size	Dab Diameter
12" x 12" (300 mm x 300 mm)	2" (50 mm)
24" x 24" (600 mm x 600 mm)	4" (100 mm)
36" x 36" (900 mm x 900 mm)	6" (150 mm)

After installation of LATAPOXY 310 Rapid Stone Adhesive onto the back of the veneer, install onto substrate and adjust for plumb and level.

Joint Treatment

Exterior applications—Use LATASIL™ to treat all joints for all exterior applications. Refer to DS 6200.1 for further instructions.

Interior applications—The following LATICRETE® products may be used for joint treatment on interior applications:

- SPECTRALOCK® PRO Premium Grout
United States Invention Patent No.: 6881768 (and other Patents)
- SPECTRALOCK PRO Premium Grout
- PERMACOLOR® Grout
- PERMACOLOR Select
- 1500 Sanded Grout or 1600 Unsanded Grout mixed with 1776 Grout Enhancer
- LATASIL

Test area to ensure proper filling as narrow veneers and wider gaps behind the veneer may not allow for joint filling with an epoxy or cement grout.

Note: Control, expansion or other movement of joints must be treated with a flexible sealant.

6. AVAILABILITY AND COST

Availability

LATICRETE and LATAPOXY materials are available worldwide.

For Distributor Information, call:

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 (United States and Canada)

A component of:

DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty (United States and Canada)

DS 025.0SPD: LATICRETE 25 Year System Warranty –MVIS (United States and Canada)

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.

All stone and tile should be maintained and sealed with LATICRETE STONETECH® professional products as appropriate for the specific tile/stone and installation situation.

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 (United States and Canada)
- DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty (United States and Canada)
- DS 025.0SPD: LATICRETE 25 Year System Warranty –MVIS (United States and Canada)
- DS 256.0: 1500 Sanded Grout
- DS 258.0: 1600 Unsanded Grout
- DS 685.0: SPECTRALOCK® PRO Grout
United States Invention Patent No.: 6881768 (and other Patents)
- DS 679.0: LATAPOXY® 310 Stone Adhesive
- DS 6200.1: LATASIL™
- DS 265.0: 1776 Grout Enhancer
- DS 250.0: PERMACOLOR® Grout
- DS 281.0: PERMACOLOR Select
United States Invention Patent No.: 6784229 (and other Patents)
- DS 681.0: SPECTRALOCK PRO Premium Grout
- DS 683.0: LATAPOXY 310 Cordless Mixer

LATICRETE International, Inc.
One LATICRETE Park North, Bethany, CT 06524-9429 USA • 1.800.243.4711 • +1.203.393.0010 • www.laticrete.com
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