



LATAPOXY[®] 310 Stone Adhesive

DS-679.0-1010



1. PRODUCT NAME

LATAPOXY[®] 310 Stone Adhesive

2. MANUFACTURER

LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION

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

Uses

- Spot bonding marble, granite and large format ceramic tile on walls and overhangs, interior or exterior applications.
- Adhesive for bonding masonry, precast concrete and stone panels.
- 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—45 minutes to 1 hour set time.
- 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.
- Rapid version is available; 5–8 minute set up.

- Approved by the following building code bodies for exterior installations: ICC, IBC.
- Conforms to EN 12004 and ISO 13007 with a classification of R2T

Acceptable Substrates

Please contact LATICRETE Technical Services at 1.800.243.4788, ext. 235 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.

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, Inc. 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

- Full unit 2.6 gal (10 l) kit containing the following:
 - 1.3 gal (5 l) Part A pail
 - 1.3 gal (5 l) Part B pail
- Mini unit 2 gal (8 l) kit containing the following:
 - 8 mini jars of Part A .13 gal (.5 l)
 - 8 mini jars of Part B .13 gal (.5 l)
- Cartridge packs—2.3 gal (9 l) containing the following:
 - 15 cartridge packs of Part A and Part B
(For use in LATAPOXY[®] 310 Cordless Mixer)
- Commercial unit 5.2 gal (20 l) containing the following:
 - 2.6 gal (10 l) Part A pail
 - 2.6 gal (10 l) Part B pail

Coverage

The coverage for LATAPOXY 310 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 (or millimeters) 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)

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.

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 exterior applications, contact Technical Services at 1.800.243.4788, ext. 235 or support@laticrete.com for approval prior to use.
- 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 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 where L=span length (except where local building codes specify more stringent deflection requirements)

Cautions

Consult MSDS for more safety information.

- Keep out of reach of children.
- LATAPOXY 310 Stone Adhesive has a slight, non-hazardous odor.
- During cold weather, protect finished work from traffic until fully cured.
- LATAPOXY 310 Stone Adhesive Part A is corrosive to eyes and skin before curing. Avoid contact with eyes and or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Consult local building code for requirements.

4. TECHNICAL DATA

Applicable Standards

ANSI A118.3, EN 12004 and ISO 13007

Physical Properties

LATAPOXY 310 Stone Adhesive

Test	Test Method	Results
Consistency	LATICRETE in house	No sag in thickness to 1 inch (25 mm)
Pot Life at 72°F (20°C)	LATICRETE in house	30–45 minutes
Set Time at 72°F (20°C)	LATICRETE in house	5–6 hours
Shear Bond Strength Marble to Concrete	ANSI A118.3–5.5*	730–920 psi (5–6.3 MPa)

Compressive Strength	ANSI A118.3–5.6	8300–8450 psi (57–58 MPa)
Tensile Strength	ANSI A118.3–5.7	1500–2100 psi (10.3–14.5 MPa)
Thermal Shock	ANSI A118.3–5.8**	1030–1600 psi (7–11 MPa)

Data taken from report TCA 179-01

* modified test method

** tile modified to 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.)

LATAPOXY 310 Stone Adhesive is ISO 13007-1 R2T

Working Properties

LATAPOXY 310 Stone Adhesive

Consistency	No Sag in Thickness to 1" (25 mm)
Pot Life @ 72°F (20°C)	30–45 minutes
Set Time @ 72°F (20°C)	5–6 hours

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.

Temperature Effects

LATAPOXY 310 Stone Adhesive

Temperature	Pot Life	Set Time
40°F (4°C)	100 minutes	10 hours
70°F (21°C)	45 minutes	5–6 hours
90°F (32°C)	25 minutes	2.5–3 hours

5. INSTALLATION

Preparation

Store resins at room temperature (>70°F [>21°C]) for 24 hours before using. 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 application of LATAPOXY 310 Stone Adhesive is made. 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.

Finished veneers equipped with any type of resin, mesh, epoxy or fiberglass backing must be ground down to the bare stone in those areas to receive LATAPOXY 310 Stone Adhesive.

Clean and grind back of stone at areas to receive the LATAPOXY 310 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 Stone Adhesive.

Recommended Guidelines for Spot Bonding Stone:

(Please consult your Local Code for actual code compliance)

1. Size—for tile or stone
Maximum Thickness: 2"–720 in² (50 mm–4645 cm²) in area.
For >720 in² (4645 cm²) contact LATICRETE Technical Service.
2. Module Weight—for tile or stone
Weight 15 lbs/ft² (73 kg/m²) unless approved by an engineer.

Exception—Adhered veneered units weighing less than 3 lbs/ft² (1.4 kg/m²) shall not be limited in dimension or area.

Note: Always check with the tile or stone factory to make sure the tile or stone is suitable for vertical and exterior (if applicable) installations.

Mixing

Combine equal volumes of LATAPOXY® 310 Stone Adhesive Part A and Part B (1:1 mix ratio by volume). Mix until uniform in color; no swirls. Small quantities can be mixed with a putty knife or margin trowel. Larger quantities can be mixed with an electric drill mixer (low speed). Cartridge packs are designed for use only with the LATAPOXY 310 Cordless Mixer.

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), 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 Stone Adhesive onto the veneer, install onto substrate and adjust for plumb and level.

Joint Treatment

Exterior Applications:

Use LATICRETE® Latasil™ to treat all joints. Refer to Data Sheet 6200.1 for further instructions.

Interior Applications:

The following LATICRETE products may be used:

- LATICRETE SpectraLOCK® PRO Grout
United States Invention Patent No.: 6881768 (and other Patents)
- LATICRETE 1500 Sanded Grout or LATICRETE 1600 Unsanded Grout mixed with LATICRETE 1776 Grout Enhancer
- LATICRETE Latasil
- LATICRETE PermaColor™ Grout

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.

Cleaning

Clean tools and work while epoxy is fresh, using warm water. Detergent or soap can be added to the water for easier cleaning.

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

A component of:

DS 025.0: LATICRETE 25 Year System 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.

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

DS 230.13: LATICRETE Product Warranty
DS 025.0: LATICRETE 25 Year System Warranty
DS 256.0: LATICRETE 1500 Sanded Grout
DS 258.0: LATICRETE 1600 Unsanded Grout
DS 685.0: LATICRETE SpectraLOCK PRO Grout
DS 679.3: LATAPOXY 310 Rapid Stone Adhesive
DS 6200.1: LATICRETE Latasil
DS 683.0: LATAPOXY 310 Cordless Mixer
DS 265.0: LATICRETE 1776 Grout Enhancer
DS 250.0: LATICRETE PermaColor Grout

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