LATAPOXY® 310 Stone Adhesive

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

FEATURES/BENEFITS
- Fast permanent bond
- Easy to use - 1:1 mixing ratio by weight
- Non-staining – ideal for white and light colored marbles, other stones and tiles
- Withstands shock and vibration
- Low Modulus
- Durable permanent bond will not deteriorate over time
- Safe - no solvents
- Non-Sag – when applied up to 1” (25mm) thick. Approved by the following building code bodies for exterior installations: BOCA; ICBO; SBCCI; ICC

USES
- Spot bonding marble, granite and large format ceramic tile on walls and overheads, interior or exterior, dry or wet applications.
- Adhesive for bonding masonry, precast concrete and stone panels.
- Ideal for fireplace surroundings, elevators and stair risers.
- Adhesive for fabricating granite, marble and other stone
- Adhesive for bedding and fastening marble, granite and other stone slabs on walls and wainscoting

MANUFACTURER/ DISTRIBUTED BY
LATICRETE South East Asia Pte Ltd (Level 2, A3)
No. 38 Sungei Kadut, Street 2, Singapore 729245
Telephone: +65 6515 3028  Fax: +65 6515 3037
Internet: se.laticrete.com

STANDARDS/CERTIFICATIONS
- ISO 13007-1
Acceptable Substrates

Interior Substrates
- Concrete
- Concrete masonry units (CMU)
- Brick/masonry
- Exterior grade plywood
- Aluminum*
- Cement backer board*
- Steel**

*Consult cement backer board/ aluminum 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 prior to use for all exterior applications.
- Concrete
  - Must be minimum 6” (150mm) thick reinforced
  - Must be minimum 3500 psi (24 MPa)
  - Must be minimum 28 days old prior to installation
- CMU
  - Double wythe walls only
- Steel

Packaging
Full Unit: 10 Kg Set containing the following:
- 5kg Part A (Pail)
- 5kg 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 below information is based on 10% coverage of the area of each tile or stone piece.

One set of LATAPOXY 310 can cover:
- Approximate 16-17m² at 3mm thickness
- Approximate 8-9m² at 6mm thickness
- Approximate 4-4.4m² at 12mm thickness

Shelf Life
Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at ≥0°C to ≤43°C.

Limitations
- Surface temperature for application: 8°C–35°C
- For exterior applications, contact Technical Services (65) 6515 3028 or enquiry@laticrete.com.sg for approval prior to use.
- 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.

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 or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Consult local building code for requirements.

TECHNICAL DATA

Performance Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water absorption</td>
<td>ANSI A118.3-1999</td>
<td>&lt;0.15%</td>
</tr>
<tr>
<td>Shear bond strength marble to concrete</td>
<td>ANSI A118.3–5.5</td>
<td>&gt;5.6 N/mm²</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ANSI A118.3–5.6</td>
<td>&gt;57N/mm²</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>ANSI A118.3–5.7</td>
<td>&gt;12N/mm²</td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>ANSI A118.3–5.8</td>
<td>&gt;9N/mm²</td>
</tr>
</tbody>
</table>

Data taken from report TCA 179-01
* modified test method
 DS44-310-0319

** Tile modified to porcelain tile
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.

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Method</th>
<th>Specification</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shear adhesive strength (7 days)</td>
<td>ISO 13007-2 4.3.4</td>
<td>≥2N/mm²</td>
<td>&gt;25N/m²</td>
</tr>
<tr>
<td>7 day cure 21 day water immersion shear adhesive strength</td>
<td>ISO 13007-2 4.3.5</td>
<td>≥2N/mm²</td>
<td>&gt;24N/m²</td>
</tr>
<tr>
<td>7 day cure 4 100°C boiling water cycles shear adhesive strength</td>
<td>ISO 13007-2 4.3.8</td>
<td>≥2N/mm²</td>
<td>&gt;29N/m²</td>
</tr>
<tr>
<td>Open time after 20 minutes</td>
<td>ISO 13007-2 4.1</td>
<td>≥0.5N/m²</td>
<td>&gt;3N/mm²</td>
</tr>
<tr>
<td>Slip</td>
<td>ISO 13007-2 4.2</td>
<td>≤0.5 mm</td>
<td>&lt;0.35m m</td>
</tr>
<tr>
<td>Transverse deformation</td>
<td>ISO 13007-2 4.5</td>
<td>≤5 mm</td>
<td>&lt;3.7mm</td>
</tr>
</tbody>
</table>

LATAPOXY 310 Stone Adhesive is ISO 13007-1 R2T

** Working Properties **

<table>
<thead>
<tr>
<th>Consistency</th>
<th>No Sag in Thickness to 25mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot life @ 20°C</td>
<td>30-45 minutes</td>
</tr>
<tr>
<td>Set time @ 20°C</td>
<td>5-6 hours</td>
</tr>
</tbody>
</table>

| Temperature Effects |
|---------------------|-------------------|
| Temp                | Pot Life | Set Time |
| 4°C                 | 100 minutes | 10 hrs   |
| 21°C                | 45 minutes   | 5-6 hrs  |
| 32°C                | 25 minutes   | 2.5-3 hrs|

** INSTALLATION **

** Preparation **
Before using, store resins at room temperature >8°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 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 Stone Adhesive.

Clean and grind back of stone in 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: 50 mm - 720 in² (≤ 4645 cm²) in area. For >4645 cm² contact LATICRETE Technical Services.

2. **Module Weight – for tile or stone **
Weight 73kg/m² unless approved by an engineer.

Exception – Adhered veneered units weighing less than 1.4kg/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 wall 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).

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

<table>
<thead>
<tr>
<th>Tile Size</th>
<th>Dab Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>12” x 12” (300 mm x 300 mm)</td>
<td>2” (50 mm)</td>
</tr>
<tr>
<td>24” x 24” (600 mm x 600 mm)</td>
<td>4” (100 mm)</td>
</tr>
<tr>
<td>36” x 36” (900 mm x 900 mm)</td>
<td>6” (150 mm)</td>
</tr>
</tbody>
</table>

After installation of LATAPOXY 310 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.

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

**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](http://se.laticrete.com)

**Cost**
Contact a LATICRETE Distributor in your area.

**WARRANTY**
LATICRETE International warrants LATAPOXY 310 Stone Adhesive is free from manufacturing defects and will not break down, deteriorate or disintegrate under normal usage for a period of two (2) years from the date of purchase subject to terms and conditions. In addition, LATAPOXY 310 Stone Adhesive is warranted for a period of ten (10) years from the date of purchase subject to the terms and conditions when used with Latasil Tile & Stone Sealant.

**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:

LATICRETE South East Asia Pte Ltd
No. 38 Sungei Kadut, Street 2,
Singapore 729245
Telephone: (65) 6515-3028
Fax: (65) 6515-3037
Email: enquiry@laticrete.com.sg

**Technical and safety literature**
To acquire technical and safety literature, please visit our website at [se.laticrete.com](http://se.laticrete.com)