LATAPoxy® 310
Stone Adhesive

PRODUCT DESCRIPTION
LATAPoxy® 310 Stone Adhesive is a two component, high strength epoxy adhesive, which is formulated for the spot bonding 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).

Application
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—45 minutes to 1 hour set time.
Easy to Use—1:1 mixing ratio.
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

Suitable 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.

NOTE:
1. 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
2. CMU
   - Double Wythe walls only

Packaging
Factory proportioned unit consisting of two conveniently packed components hardener & resin (Part A & Part B)

#1 Unit (10 Kg)

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.

<table>
<thead>
<tr>
<th>Average Inches (or millimeters) Out of Plumb</th>
<th>LATAPoxy® 310 Thickness</th>
<th>Approx. Coverage/10 Kg Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumb Wall</td>
<td>1/8&quot; Thick (3 mm)</td>
<td>175–190 ft² (16–17 m²)</td>
</tr>
<tr>
<td>1/4&quot; (6 mm)</td>
<td>1/4&quot; Thick (6 mm)</td>
<td>87–95 ft² (8–9 m²)</td>
</tr>
<tr>
<td>1/2&quot; (12 mm)</td>
<td>1/2&quot; Thick (12 mm)</td>
<td>43–47 ft² (4–4.4 m²)</td>
</tr>
</tbody>
</table>

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, Masonite® or hardwood surfaces.

Adhesives for ceramic tile and stone are not replacements for waterproof membranes. When a waterproof membrane is required, use LATICRETE® Waterproof Membrane

Cautions

- 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.
- During cold weather, protect finished work from traffic until fully cured.

### TECHNICAL DATA

**ANSI A118.3, EN 12004 and ISO 13007 Physical Properties**

LATAPOXY 310 Stone Adhesive

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>STANDARD REQUIREMENTS</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength</td>
<td>ANSI 118.3 Clause (5.6)</td>
<td>$\geq 3500$ psi (24.13 MPa)</td>
<td>$&gt;8000$ psi (56 Mpa)</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ANSI 118.3 Clause (5.7)</td>
<td>$\geq 1000$ psi (6.90 MPa)</td>
<td>1800-2300 psi (12.41-15.86 Mpa)</td>
</tr>
</tbody>
</table>

**Shear Bond Strength**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>STANDARD REQUIREMENTS</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tile to Tile</td>
<td>A118.3 Clause (5.5)</td>
<td>$\geq 1000$ psi (6.90 MPa)</td>
<td>550-750 psi (3.80-5.17 Mpa) Tile failure observed</td>
</tr>
<tr>
<td>Marble to Concrete</td>
<td>A118.3 Clause (5.5)</td>
<td>$\geq 1000$ psi (6.90 MPa)</td>
<td>700-900 psi (5.1-5.8 Mpa) Concrete/Stone yield</td>
</tr>
<tr>
<td>Marble to Marble</td>
<td>A118.3 Clause (5.5)</td>
<td>$\geq 1000$ psi (6.90 MPa)</td>
<td>1200-1800 psi (8.2-12.4 Mpa) Stone failure</td>
</tr>
<tr>
<td>Marble to Metal</td>
<td>A118.3 Clause (5.5)</td>
<td>$\geq 1000$ psi (6.90 MPa)</td>
<td>1200-1800 psi (8.2-12.4 Mpa) Stone failure</td>
</tr>
<tr>
<td>Thermal Shock (Porcelain tile &amp; Stone)</td>
<td>A118.3 Clause (5.8)</td>
<td>$\geq 500$ psi (3.45 MPa)</td>
<td>1100-1600 psi (7.6-11.3 Mpa) Tile/Stone failure</td>
</tr>
</tbody>
</table>

LATAPOXY 310 Product conforms to the requirements of ANSI A118.3.

**PERFORMANCE PROPERTIES ACCORDING TO IS 15477(Type-2):**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>STANDARD REQUIREMENTS</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shear Adhesion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Conditions, 24 Hours</td>
<td>Annex A (Clause 4.5)</td>
<td>min. 4.00 kN</td>
<td>20 kN</td>
</tr>
<tr>
<td>Dry Conditions, 14 Days</td>
<td>Annex A (Clause 4.5)</td>
<td>min. 10.00 kN</td>
<td>30-35 kN</td>
</tr>
<tr>
<td>Heat Ageing Conditions</td>
<td>Annex A (Clause 4.5)</td>
<td>min. 5.00 kN</td>
<td>30-35 kN</td>
</tr>
<tr>
<td>Wet Conditions</td>
<td>Annex A (Clause 4.5)</td>
<td>min. 5.00 kN</td>
<td>30-35 kN</td>
</tr>
</tbody>
</table>

LATAPOXY 310 conforms to the requirements of IS 15477, Designation Type 2.
Performance Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>STANDARD REQUIREMENTS</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 day cure Shear adhesion strength</td>
<td>ISO 13007-2 4.3.4</td>
<td>≥ 2 N/mm²</td>
<td>15-25 N/mm² (2175-3600 psi)</td>
</tr>
<tr>
<td>Shear adhesion strength after water immersion</td>
<td>ISO 13007-2 4.3.5</td>
<td>≥ 2 N/mm²</td>
<td>14-24 N/mm² (2030-3480 psi)</td>
</tr>
<tr>
<td>Shear adhesion strength after Thermal Shock</td>
<td>ISO 13007-2 4.3.8</td>
<td>≥ 2 N/mm²</td>
<td>18-30 N/mm² (2600-4350 psi)</td>
</tr>
<tr>
<td>Open time after 20 minutes</td>
<td>ISO 13007-2 4.1</td>
<td>≥ 0.50 N/mm²</td>
<td>3.0 - 3.8 N/mm² (20 minutes)</td>
</tr>
<tr>
<td>Vertical Slip resistance</td>
<td>ISO 13007-2 4.2</td>
<td>≤ 0.50 mm (0.02 in)</td>
<td>0.1-0.3 mm (0.0039-0.012 in)</td>
</tr>
<tr>
<td>Transverse Deformation</td>
<td>ISO 13007-2 4.5</td>
<td>≥ 2.5 mm to &lt; 5 mm</td>
<td>3.1 mm</td>
</tr>
</tbody>
</table>

LATAPOXY 310 conforms to the requirements of EN 12004/ISO 13007 with a classification of R2T.

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.

Working Properties

LATAPOXY 310 Stone Adhesive

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TYPICAL VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixing Ratio - A : B (By weight)</td>
<td>1 : 1</td>
</tr>
<tr>
<td>Specific Weight of the Mixture</td>
<td>1750-1875 kg/m³</td>
</tr>
<tr>
<td>Consistency</td>
<td>Thick Paste- No sag in thickness</td>
</tr>
<tr>
<td></td>
<td>1''(25mm)</td>
</tr>
<tr>
<td>Set Time @ 21°C</td>
<td>5-6 hours</td>
</tr>
<tr>
<td>Set Time @ 25°C</td>
<td>4-5 hours</td>
</tr>
<tr>
<td>Pot Life @ 21°C</td>
<td>40-50 min</td>
</tr>
<tr>
<td>Pot Life @ 25°C</td>
<td>25-35 min</td>
</tr>
</tbody>
</table>

Temperature Effects

LATAPOXY 310 Stone Adhesive

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Pot Life</th>
<th>Set Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>40°F (4°C)</td>
<td>100 minutes</td>
<td>10 hours</td>
</tr>
<tr>
<td>70°F (21°C)</td>
<td>45 minutes</td>
<td>5-6 hours</td>
</tr>
<tr>
<td>90°F (32°C)</td>
<td>25 minutes</td>
<td>2.5-3 hours</td>
</tr>
</tbody>
</table>

INSTALLATION

Surface Preparation

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. Stone or Interior Tile Applications

   Size - Maximum Thickness and Facial Dimension: 2”=720 in² (50 mm=4645 cm²) in area.

   Module Weight: 15 lbs/ft² (73 kg/m²) unless otherwise approved by an engineer.

2. Porcelain Tile (exterior)

   Size - Maximum Thickness and Facial Dimension: 5/8”=432 in² (15 mm=2786 cm²) in area.

   Module Weight: 9 lbs/ft² (44 kg/m²) unless otherwise approved by an engineer.

Note: Always check with the tile or stone manufacturer 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). 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:

<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 veneer, install onto substrate and adjust for plumb and level.

Grouting
Grout installation after a minimum of 24 hours curing time at 70°F (21°C). Grout with LATICRETE® Sanded or Unsanded Grout mixed with LATICRETE 1776 Grout Admix plus . For maximum stain resistance use LATAPOXY® SP-100 Stainfree Grout for interior applications. For exterior applications, use MYK LATICRETE STELLAR single component flexible 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.

AVAILABILITY AND COST

Availability
LATICRETE and LATAPOXY® materials are available worldwide. For distributor information:
Telephone: +91-40-23378775/76/79
FAX: +91-40-23378784
e-mail: laticrete@laticreteindia.com

Cost
Contact a LATICRETE® Distributor in your area.

MAINTENANCE
LATICRETE® and LATAPOXY® grouts require routine cleaning with neutral pH soap and water or MYK LATICRETE Clenza series suitable cleaners. All other LATICRETE® and LATAPOXY® materials require no maintenance but proper installation as per instruction. Performance and durability may depend on properly maintaining of Installed area.

WARRANTY
MYK Laticrete India Pvt Ltd warrants LATICRETE® 300 Epoxy Adhesive is free from manufacturing defects and will not break down, deteriorate or disintegrate under normal usage for a period of two (2) year from manufacturing of the product subject to the terms and conditions stated in LATICRETE® Product Warranty.

TECHNICAL SERVICES
Technical assistance
Information is available by calling the MYK LATICRETE® Technical Service at:
Telephone: +91-40-30413100
e-mail: contact@myklaticrete.com

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