



**MYK LATICRETE**

# LATAPOXY® 310 Spot Bonding Adhesive



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).

### Features / Benefits

- 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.

### 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:

- 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

### Application

Designed for Spot bonding marble, granite adhered masonry veneer and large format tile, granite, adhered masonry veneer and large format ceramic tile on walls and overheads, interior or exterior applications. Works as a segmental bonding agent for concrete elements, anchoring material for steel to concrete, excellent repair material and for creative works in marble.

### Certifications

**IS 15477: Type 5T**

**EN 12004: R2T**

**ANSI A 118.3**

Member of  
**Indian Green Building Council**



## TECHNICAL DATA

Performance Properties:  
LATAPOXY 310

Applicable Standards:  
EN 12004 / ISO 13007/ANSI A 118.3 & IS 15477:  
2019

EN / ISO Data		
Test / Reference	Requirement	Typical Values
7 day cure Shear adhesion strength - ISO 13007-2 4.3.4 (EN 12003-7.3)	$\geq 2 \text{ N/mm}^2$	15-25 N/mm <sup>2</sup> (2175-3600 psi) Tile/Stone failure
Shear adhesion strength after water immersion- ISO 13007-2 4.3.5 (EN 12003-7.4)	$\geq 2 \text{ N/mm}^2$	14-24 N/mm <sup>2</sup> (2030-3480 psi) Tile/Stone failure
Shear adhesion Strength after Thermal Shock - ISO 13007-2 4.3.8 (EN 12003-7.5)	$\geq 2 \text{ N/mm}^2$	18-30 N/mm <sup>2</sup> (2600-4350psi) Tile / Stone failure
Open time after 20 minutes - ISO 13007-2 4.1 (EN 1346)	$\geq 0.50 \text{ N/mm}^2$	3.0 -3.8 N/mm <sup>2</sup> (20 minutes)
Vertical Slip resistance - ISO 13007-2 4.2	$\leq 0.50 \text{ mm}$ (0.02 in)	0.10-0.30 mm (0.0039-0.012 in)

The adhesive mortar conforms to EN 12004 / ISO 13007 as R2T

ANSI DATA		
Test / Reference	Requirements	Typical values
Compressive Strength - ANSI 118.3 Clause (5.6)	$\geq 3500 \text{ psi}$ (24.13 MPa)	>56.2 Mpa (>8150 psi)
Tensile Strength - ANSI 118.3 Clause (5.7)	$\geq 1000 \text{ psi}$ (6.90 MPa)	12.41-15.86 Mpa (1800-2300 psi)
<b>Shear Bond Strength</b>		
Tile to Tile - A118.3 Clause (5.5)	$\geq 1000 \text{ psi}$ (6.90 MPa)	3.80-5.17 Mpa (550-750 psi) Tile failure observed
Marble to Marble - A118.3 Clause (5.5)	$\geq 1000 \text{ psi}$ (6.90 MPa)	5.1-5.8 Mpa (700-900 psi) Stone failure
Marble to Concrete - A118.3 Clause (5.5)	$\geq 1000 \text{ psi}$ (6.90 MPa)	8.20-12.40 Mpa (1200-1800 psi) Stone failure
Marble to Metal - A118.3 Clause (5.5)	$\geq 1000 \text{ psi}$ (6.90 MPa)	8.20-12.40 Mpa (1200-1800 psi) Stone failure

Thermal Shock (Porcelain tile & Stone) - A118.3 Clause (5.8)	$\geq 500 \text{ psi}$ (3.45 MPa)	7.60-11.30 Mpa (1100-1600 psi) Tile/Stone failure
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Latapoxy 310 Product conforms to the requirements of ANSI A118.3.

## PERFORMANCE PROPERTIES ACCORDING TO IS 15477: 2019 (Type-5):

IS 15477: 2019 DATA		
Test / Reference	Requirements	Typical values
<b>Tensile Adhesion Strength</b>		
Dry Conditions - Annex A (Clause 5.1)	min. 2.00 N/mm <sup>2</sup>	13-15 N/mm <sup>2</sup>
<b>Shear Adhesion Strength</b>		
Dry Conditions- Annex B (Clause 5.2)	min. 6.00 N/mm <sup>2</sup>	10.2 – 12.4 N/mm <sup>2</sup>
Heat Ageing Conditions- Annex B (Clause 5.2)	min. 3.00 N/mm <sup>2</sup>	7 – 9 N/mm <sup>2</sup>
Vertical Slip: Annex E (Clause 5.5)	$\leq 0.50 \text{ mm}$	0.10-0.30 mm

\*NOTE: Substrate failure noticed in all the cases.  
Latapoxy 310 conforms to the requirements of IS 15477, Designation Type 5T

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.

## Chemical Resistance Chart:

LATAPOXY® 310 EPOXY ADHESIVE		
REAGENT TYPE (at 70°F/21°C)	EXPOSURE LEVEL	
	Intermittent*	Constant**
Citric Acid 10%	R	R
Sulfuric Acid 10%	R	R
Hydrochloric Acid 10%	R	R
Lactic Acid 5%	R	R
Vinegar	R	R
Acetic Acid 10%	R	NR
Nitric Acid 10%	R	R
Sodium Hydroxide 10%	R	R
Sodium Chloride 10%	R	R
Concentrated Detergents	R	NR
Ammonium Hydroxide	R	R
Sugars	R	R
Gasoline	R	NR

Cooking Oils	R	R
Turpentine	R	R
Mineral Spirits	R	R
Toluene	NR	NR
Xylol	NR	NR

**R= Recommended • NR= Not Recommended**

Chemical Resistance determined in accordance with ASTM C267-1982.

NOTES TO SPECIFIER: Use the constant exposure recommendations for intermittent exposure to reagents at temperatures above 90°F (32°C).

\* Intermittent is less than 3 days exposure.

\*\* Constant is 1-month exposure

**Packaging:**

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

# 10 Kg & # 1 Kg

**Colour:** Off White

**Coverage:**

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 Kg Unit
Plumb Wall (0 mm)	1/8" Thick (3 mm)	175-190 ft <sup>2</sup> (16-17 M <sup>2</sup> )
1/4" (6 mm)	1/4" Thick (6 mm)	87-95 ft <sup>2</sup> (8-9 M <sup>2</sup> )
1/2" (12 mm)	1/2" Thick (12 mm)	43-47 ft <sup>2</sup> (4-4.4 M <sup>2</sup> )

**Working Properties at 70° F (21° C)**

PROPERTY	TYPICAL VALUES
Mixing Ratio- A : B ( By weight)	1 : 1
Specific Weight of the Mixture	1750-1875 kg/m <sup>3</sup>
Consistency	Thick Paste- No sag in thickness 1"(25mm)
Set Time @ 21° C	5-6 hours
Set Time @ 25° C	4-5 hours
Pot Life @ 21° C	40 -50 min
Pot Life @ 25° C	25-35 in

**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

**INSTALLATION**

**Surface 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, rust 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)

- 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.
- 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).

## 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.

### 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.

### NOTE TO THE SPECIFIER AND INSTALLER:

While installing tile/stone on the external walls and floors, we need to provide the joints by creating spaces between the tiles/stones and filling them up with MYK Laticrete Stellar Grout OR LATICRETE® cement based grout mixed with L1776 grout admix plus OR silicone sealants. In the absence of spacer joints, the surface movements can push tiles/stones away from the substrate causing de-bonding of tiles or stones.

It is important to note that the exterior tile / stone installations are provided with joints (spaces) on the periphery of the area without allowing the tile / stone to be bound by the peripheral masonry work or plaster.

It is also important to note that the tiles/stones are not installed directly on expansion joints. The expansion joints need to be run through the tile / stonework till top surface and filled with materials which accommodate the movements.

### 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 MYK 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.

### **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).

### **Warranty:**

MYK Laticrete India Pvt Ltd warrants LATICRETE® 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) year from manufacturing of the product subject to the terms and conditions stated in MYK LATICRETE® Product Warranty.

### **CUSTOMER CARE**

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