



LATICRETE® 335 MAXI Multipurpose LFT Adhesive



Multipurpose partially light weight highly polymer modified and highly flexible adhesive for installation of large format/ slim tiles on most of the substrates to accommodate movements. It offers very good handling properties with good sag and slump resistance while doing installation on wall or floor respectively. It can be applied up to 18 mm bed thickness

Application

Designed to suit both interior and exterior floor/wall installations of variety of slim tiles/stones such as ceramic tile, vitreous, semi-vitreous tile, paper faced glass mosaic tiles, precast terrazzo and natural stones. Suitable for installing tiles over concrete and on a variety of substrates. Good underwater shear bond allows this product to be used for wet areas like swimming pools, sauna, water bodies and washrooms. Befitting for tile-on-tile applications.

Features / Benefits

- Light weight formula - higher coverage than standard adhesive
- High strength with high polymer modification
- Extended open time of 40 mins
- Non sag & non slump formula for large format tiles in wall and floor systems
- Good resistance against crack propagation
- Good impact resistance- provides cushion effect to tiles
- Exceeds ANSI A118.4 shear bond strength requirements
- Complies with EN / ISO with a C2TES1 classification.
- Exceeds IS15477-Type4/TS1 Adhesive standards.

Suitable Tile Types

Slim porcelain large format tiles Vitreous, semi vitreous or non- vitreous tiles; ceramic; quarry, cement body tile Brick Cement based precast terrazzo Natural stone tile

Substrates

- Concrete & Concrete Masonry
- MIVON Concrete, VDF, Precast concrete
- Cement Mortar Beds
- Cement plaster
- Ceramic tile, Vitrified Tile and Natural Stone
- Glass mosaic tile
- Brick Masonry
- Cement Backer Board**
- Cement Terrazzo
- Calcium Silicate Board** (For dry areas)
- Gypsum wall board** (For dry areas)

**Consult the backer board manufacture's data sheet for the specific recommendations & load bearing capacity of specific board intended for use. For best results on drywall boards, use DWA 215 plus or PUA 212

Certifications

IS 15477 Type: 4/TS1 EN: C2TES1

A118.4ET

Member of
Indian Green Building Council



TECHNICAL DATA

Performance Properties:

LATICRETE®335 Maxi LFT Multipurpose Adhesive mixed with Water

Applicable Standards:

ANSI A118.4; EN 12004 & ISO 13007; IS15477:2019

ANSI Data		
Property: Test method	Requirement	Typical Values
Open Time (30 Minutes at 28 days): ANSI A118.4 Clause – 5.3	≥75 psi (0.50 MPa)	40 – 45 Minutes
Sag: ANSI A118.4- Clause 6.0	≤0.02 Inches (0.50 mm)	0.008 – 0.012 Inches (0.20-0.30 mm)
Glazed wall tile Shear Strength		
7 Days: ANSI A118.4 – Clause 7.1.2	>300psi (2.07MPa)	350-375 psi (2.40 Mpa-2.57 MPa)
7 Days Water immersion: ANSI A118.4- Clause 7.1.3)	>200psi (1.38MPa)	250-275 psi (1.72 Mpa-1.89 MPa)
Porcelain Mosaic Tile Shear Strength		
1 Day: ANSI A118.4 – Clause 7.2.2	>75psi (0.50MPa)	80 - 90 psi (0.86 – 1.20 MPa)
7 Days: ANSI A118.4 – Clause 7.2.3	>200psi (1.38MPa)	300 - 350 psi (1.89 – 2.23 MPa)
7 Days Water immersion: ANSI A118.4 – Clause 7.2.4	>150psi (1.03MPa)	225 - 275 psi (1.72 – 2.06 MPa)
28 Days: ANSI A118.4 – Clause 7.2.5	>200psi (1.38MPa)	325 - 375 psi (2.06 – 2.40 MPa)
28 Days: W/ Freeze-Thaw cycling. ANSI A118.4 – Clause 7.2.5	>175psi (1.20MPa)	275 - 325 psi (1.89 – 2.23 MPa)
12 Weeks: ANSI A118.4 – Clause 7.2.7	>200psi (1.38MPa)	325 - 375 psi (2.06 – 2.40 Mpa)
Quarry Tile Shear Strength		
28 Days: ANSI A118.4 – Clause 7.3.2	>150psi (1.03MPa)	250 - 300 psi (1.72 – 2.06 MPa)
28 Days: W/ Freeze-Thaw cycling. ANSI A118.4 – Clause 7.3.3	>100psi (0.69MPa)	200 - 250 psi (1.37 – 1.72 MPa)

The adhesive mortar conforms to ANSI A118.4ET

EN / ISO Data		
Property: Test Method	Requirement	Typical Values
Open Time: EN 1346	≥0.50 N/mm ²	40 – 45 Minutes
Slip Resistance: EN 1308	≤0.50 mm	0.20 - 0.30 mm
Tensile Adhesion Strength		
Initial: EN 1348 – Clause 8.2	≥1.00 N/mm ²	1.50 – 2.00 N/mm ²
After Water Immersion: EN 1348 – Clause 8.3	≥1.00 N/mm ²	1.00 – 1.50 N/mm ²
Heat Ageing: EN 1348 – Clause 8.4	≥1.00 N/mm ²	1.25 – 1.50 N/mm ²
Freeze- Thaw: EN 1348 – Clause 8.5	≥1.00 N/mm ²	1.50 – 2.00 N/mm ²
Transverse Deformation: EN12002	≥2.5mm <5.00mm	2.70mm – 3.00 mm

The adhesive mortar conforms to EN12004 / ISO 13007 as C2TES1

IS 15477: Type -4		
Property: Test method	Requirement	Typical Values
Shear Adhesion strength		
Dry Conditions (28 days) – Annex B (Clause 5.2)	≥ 1.50 N/ mm ²	1.75 – 2.00 N/mm ²
Heat Ageing Conditions (14 Days Std+ 14 Days Oven) – Annex B (Clause 5.2)	≥ 1.00 N/ mm ²	1.25 – 1.60 N/mm ²
Wet Conditions (7 Days Std+21 Days Water) – Annex B (Clause 5.2)	≥ 1.00 N/ mm ²	1.00 – 1.50 N/mm ²
Tensile Adhesion Strength		
Dry Conditions (28 days) – Annex A (Clause 5.1)	≥ 1.50 N/ mm ²	1.50 – 2.00 N/mm ²
Wet Conditions (7 Days Std+21 Days Water) – Annex A (Clause 5.1)	≥ 1.00 N/ mm ²	1.00 – 1.50 N/mm ²

The Adhesive mortar conforms to IS 15477: Type 4/TS1 Adhesive

Packaging:

20 kg

Colour:

Grey and White

Coverage details (per 20kg bag):

Trowel Size	Average Bed Thickness	Minimum Coverage	Maximum Coverage
6 x 6 mm Square Notch	3 mm	58 ft ² / 5.35 m ²	62 ft ² / 5.80 m ²
9 x 9 mm Square Notch	4.5 mm	38 ft ² / 3.57 m ²	42 ft ² / 3.86 m ²
12 x 12 mm Square Notch	6 mm	29 ft ² / 2.67 m ²	31 ft ² / 2.90 m ²
18 x 18 mm Square Notch	9 mm	19 ft ² / 1.78 m ²	21 ft ² / 1.94 m ²
6mm surface levelling + 12 x 12 mm Square Notch	12 mm	14 ft ² / 1.34 m ²	16 ft ² / 1.49 m ²

*Coverage will vary depending on type and size of tile, substrate smoothness and unevenness

Working Properties at 70° F (21° C)

LATICRETE[®]335 Maxi LFT Multipurpose Adhesive mixed with Water

Open Time	40 minutes
Adjustability Time	40 minutes
Pot Life	4-5 hours
Time to Foot Traffic	16 - 24 hours

Specifications are subjected to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

INSTALLATION

To achieve a successful installation of large format/ thin tiles, adhere to the following recommendation:

- Proper surface preparation
- Proper material mixing & application
- Use of a proper edge-leveling system
- Beating of tile into mortar bed using a Rubber Mallet

Surface Preparation:

All surfaces should be between 50° F (10° C) and 100° F (38° C) and structurally sound, clean and free of all dirt, oil, grease, loose peeling paint, laitance, concrete sealers or curing compounds.

Key to have easy and proper installation of the large format or thin/slim porcelain tiles is the preparation of the surface and complete removal of demolding wax powder on the back surface of the tile. Should there be a fiber mesh present on the back surface of the tile, ensure that it is completely removed before proceeding with the installation using Laticrete 335 Maxi.

Before installation on floor with Floor flatness: While installing on floor, it is recommended that the substrate has the following:

- Properly prepared substrates should not have more than a permissible variation of 1/8" in 10 feet (3mm in 3.05m) from the required plane; nor more than 1/16" in 24 inches (2 mm in 600 mm) when measured from high points in the surface with a straight edge

Before installation check for Wall flatness: While installing on wall, it is recommended that the substrate has the following:

The prepared substrates shall have no more than a permissible variation of 1/8" in 10 feet (3 mm in 3 m) from the required plane; nor more than 1/16" in 24" (2 mm in 60 cm) when measured from high points in the surface with a straight edge

The surface flatness is very important as mild impact on the uneven surfaces of the tile can result in cracking of large format/ thin tile.

Dry, dusty concrete slabs or masonry should be dampened, and excess water swept off. Installation may be made on a damp surface. New concrete slabs shall be damp cured and 28* days old before installation of large format tiles.

*No minimum cure time for concrete slabs when adhesive mortar is mixed with latex additive.

Bonding to Concrete Surfaces:

Concrete or plaster must be fully cured and must accept water absorption. Test by sprinkling water on various areas of the substrate. If water is absorbed, then a good bond can be achieved; if water beads, it indicates surface contaminants and hence loss of adhesion may occur. Contaminants should be mechanically removed before installation. Concrete must be free of efflorescence and not subject to hydrostatic pressure. Concrete slabs should have a coarse finish to enhance the bond. Smooth concrete slabs must be mechanically abraded to achieve improved bond with the adhesive mortar.

Bonding to Light weight Cementitious Systems:

Lightweight underlayment's must have obtained sufficient compressive strength before installation of the large format tiles. The underlayment must be sufficiently dry and properly cured to the manufacturer's specifications for permanent, non-moisture permeable coverings. Surfaces to be tiled must be structurally sound and subject to deflection not exceeding current industry standards. Surfaces shall be free of all grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, or any other foreign matter.

Bonding to Cutback Adhesive:

The hardened adhesive parts must be removed, as they reduce mortar bond strength to cement surfaces. Never use adhesive removers or solvents, as they soften the adhesive and may cause it to penetrate in the concrete. Adhesive residue must be wet scraped to the finished surface of the concrete. To determine desirable results, do a test bond area before starting the installation process.

Movement Joint Placement:

Movement joints are required for perimeters and other changes of plane in all installations. Expansion joints shall be provided through the tile work from all construction or expansion joints in the substrate. Do

not cover expansion joints with thin set mortar. Follow ANSI Specification AN-3.8 "Requirements for Expansion Joints" or TCA Detail EJ171 "Expansion Joints". For tile installation over Cement Backer Board: follow TCA installation details W244.

Material Preparation & Application to the tile:

Mixing Procedure:

Place clean, potable water into a clean mixing bowl. Add LATICRETE 335 Maxi powder into the mixing bowl. Use approximately 6.2 – 6.8 L of water for 20 kg of powder. Use a low-speed paddle drill mixer to get smooth, paste-like consistency. Let the mixture slake or stand for 5-10 minutes; stir again and use. Stir occasionally, but do not add more water. When properly mixed, troweled ridges will stand without slump.

Mixing Ratios:

Mix 6.2 – 6.8 L of water for 20 kg bag of mortar.

Application of Product:

a) Tile/Stone

Use a properly sized notch trowel to ensure proper coverage under tiles. Using the flat side of the trowel, apply a skim coat of mortar to the surface. With the notch side of the trowel held at a 45° angle, apply additional mortar to the surface, combing in one direction. Press the tile firmly into place in a perpendicular motion across ridges, moving back and forth. The perpendicular motion flattens ridges and closes valleys, allowing maximum coverage. For all large format tiles, back buttering is mandatory. With some tile, back-buttering is advisable. If the material has skinned over (not sticky to the touch), recomb with the notch trowel; if too dry, remove and replace the dry material with fresh material. Adhesive Mortar should not be used to fill low spots in the flooring. The mortar thickness should not exceed the specified range. Ambient temperature should be maintained above 50° F (10° C) or below 100° F (38° C) for 72 hours to achieve proper bond

B) Paper faced Glass Mosaic tiles

The LATICRETE® 335 Maxi adhesive shall be applied to the surface to be tiled with a notched trowel using a scraping motion to work the adhesive into good contact with the surface to be covered. Notch trowel with notches approximately 4mm is recommended to get a bed thickness of 1.5-2mm. V-notch of 3 mm also can be used to get bed thickness of 1.5 mm. Apply only so much that can be covered with tile within 10-15 minutes or while the adhesive surface is still tacky. The Glass Mosaic tiles shall then be set in place and beaten gently with mallet or grouting float to ensure 100% full bedding. Tiles shall be aligned to achieve uniform joints and then allowed to set until firm.

After the tiles are set firm, the face of the sheets of front paper mounted glass mosaic tiles shall then be dampened and the face mount paper can be removed.

NOTE: All glass mosaics with mesh backing should be installed using Resin based adhesive like Laticrete PUA 212.

NOTES: For tile or stone installations on plywood and wood substrates, MYK LATICRETE DWA 215 Plus OR MYK LATICRETE DWA 215 OR MYK LATICRETE PUA 212 is recommended. Please refer specific product Technical Data Sheet for detailed recommendations.

For all stones with a back-protection mesh, it is important to remove the mesh first and remove the epoxy layer by light grinding to ensure perfect bond with the adhesive.

NOTE TO THE SPECIFIER AND INSTALLER:

Check if the adhesive mortar chosen is the right mortar for the installation of the tile, based on the following:

- **Type of Substrate**
- **Size of Tile**
- **Type of Tile**
- **Area of Application**

While installing tile/stone on the external walls and floors, we need to provide the spacer joints by creating spaces between the tiles/stones and fill them up with MYK LATICRETE cement-based grout mixed with MYK LATICRETE 1776 grout admix plus or flexible grout like MYK LATICRETE STELLAR. (In the absence of spacer joints, the surface movements can push tiles/stones away from the substrate causing de-bonding of tiles or stones)

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.

HOT & COLD WEATHER TILING:

* Please refer technical document on Hot & Cold weather tiling

Grouting:

Grout installation shall be commenced after a minimum of 24-48 hours curing time at 70°F (21° C). Grout with MYK LATICRETE Sanded or Unsanded Grout mixed with MYK LATICRETE® 1776 Grout Admix Plus.

For maximum stain resistance of Internal spacer joints applications, use SP-100 Stainfree Grout.

For maximum stain resistance of External spacer joints applications, use MYK Laticrete Stellar Grout, which can accommodate movements and is UV resistant.

Note: Grouts are not replacement for water proofing of tiled areas. In case of water proofing requirement, choose an appropriate waterproofing membrane.

Use of a mechanical edge-leveling system:

Mechanical edge leveling systems or clamps, will greatly assist in the installation of large format or thin body porcelain tile to reduce the effects of lippage. These mechanical clamps help to align the edges of the tile and in many cases reduce lippage to zero

Beating of tile into mortar bond coat:

Lightly beat the surface of the tile with an orbital sander to ensure good contact. Start in the center of the tile and work to the outer edges. If the above is not available, use a rubber mallet and slowly tamp on the surface

Do not apply excessive downward pressure to the vibrator. Rather, allow it to float across the surface of the tile.

Cleaning of equipment:

Clean all tools with water before the material dries.

Storage:

Store in a cool, dry area.

Shelf Life:

Factory sealed containers of this product are guaranteed to be of first quality for (1) year * If stored off the ground in a dry area

. *High humidity will reduce the shelf life of bagged product

Health Precautions:

See Safety Data Sheet for more information.

This product contains Portland cement and silica. Avoid eye contact and prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Do not breathe dust; wear a P2 type respiratory mask. Follow the safety norms as per ISO 45001 Occupational Health and Safety Clauses.

CUSTOMER CARE

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