LATICRETE® 335 MAXI LFT
Multipurpose 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.

Features / Benefits

- Light weight formula- 15% higher coverage than standard adhesive
- High strength with high polymer modification
- Extended open time
- 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 IS 15477 – Type 3/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

Application

Designed especially for interior and exterior floor and wall installations of all types of ceramic tile, vitreous, semi-vitreous tile, paper faced glass mosaic tiles, precast terrazzo and natural stones 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. Can be used for tile on tile applications and as slurry bond adhesive in wet on wet applications.

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 Wallboard** (For dry areas)

**Consult the backer board manufacturer’s data sheet for the specific recommendations and load bearing capacity of specific board intended for use.

Certifications

IS 15477 Type: 3/TS1  EN: C2ETS1
Performance Properties:
LATICRETE® 335 Maxi LFMultipurpose Adhesive mixed with Water

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

The adhesive mortar conforms to ANSI A118.4ET

<table>
<thead>
<tr>
<th>EN / ISO Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property: Test Method</td>
</tr>
<tr>
<td>Open Time: EN 1346</td>
</tr>
<tr>
<td>Slip Resistance: EN 1308</td>
</tr>
</tbody>
</table>

**Tensile Adhesion Strength**

| Initial: EN 1348 – Clause 8.2 | ≥1.00 N/mm² | 1.50 – 2.00 N/mm² |
| After Water Immersion: EN 1348 – Clause 8.3 | ≥1.00 N/mm² | 1.25 – 1.75 N/mm² |
| Heat Ageing: EN 1348 – Clause 8.4 | ≥1.00 N/mm² | 1.25 – 1.50 N/mm² |
| Freeze- Thaw: EN 1348 – Clause 8.5 | ≥1.00 N/mm² | 1.50 – 2.00 N/mm² |

**Transverse Deformation:**

| EN12002 | ≥2.5mm | <5.00mm |
| 2.70mm - 2.80mm |

The adhesive mortar conforms to EN12004 / ISO 13007 as C2TE51

### IS 15477: Type 3

| Property: Test Method | Requirement | Typical Values |
| Shear Adhesion strength |
| Dry Conditions (28 days) – Annex B (Clause 5.2) | ≥ 1.50 N/mm² | 1.75 – 2.00 N/mm² |
| Heat Ageing Conditions (14 Days Std + 14 Days Oven) – Annex B (Clause 5.2) | ≥ 1.00 N/mm² | 1.25 – 1.50 N/mm² |
| Wet Conditions (7 Days Std + 21 Days Water) – Annex B (Clause 5.2) | ≥ 1.00 N/mm² | 1.30 – 1.55 N/mm² |

**Tensile Adhesion Strength**

| Dry Conditions (28 days) – Annex A (Clause 5.1) | ≥ 1.50 N/mm² | 1.50 – 2.00 N/mm² |
| Wet Conditions (7 Days Std + 21 Days Water) – Annex A (Clause 5.1) | ≥ 1.00 N/mm² | 1.25 – 1.75 N/mm² |

The Adhesive mortar conforms to IS 15477: Type 3/TS1 Adhesive

### Packaging:

25 kg bags

### Colour:

Grey

Typical Values:

- **Porcelain Mosaic 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)

- **Glazed wall tile Shear Strength**
  - 7 Days: ANSI A118.4 – Clause 7.1.2
    - >75 psi (0.50 Mpa)
    - 125 - 175 psi (0.86 – 1.20 Mpa)
  - 7 Days Water Immersion: ANSI A118.4- Clause 7.1.3
    - >200psi (1.38Mpa)
    - 275 - 325 psi (1.89 – 2.23 Mpa)

- **Quarry Tile Shear Strength**
  - 7 Days: ANSI A118.4 – Clause 7.2.5
    - >200psi (1.38Mpa)
    - 300 - 350 psi (2.06 – 2.40 Mpa)
  - 7 Days: W/ Freeze-Thaw cycling, ANSI A118.4 – Clause 7.2.5
    - >175psi (1.20Mpa)
    - 275 - 325 psi (1.89 – 2.23 Mpa)

- **Transverse Deformation**
  - 12 Weeks: ANSI A118.4 – Clause 7.2.7
    - >200psi (1.38Mpa)
    - 300 - 350 psi (2.06 – 2.40 Mpa)

- **Tensile Adhesion 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)

- **Slip Resistance**
  - EN 1346
    - ≤0.50 mm

- **Heat Ageing**
  - EN 1348
    - ≥175 psi

- **Immersion**
  - EN 1348
    - ≥2.5mm

- **Sag, ANSI A118.4- Clause 6.0**
  - ≤0.02 inches (0.50 mm)
  - 0.008 – 0.012 inches (0.20-0.30 mm)

- **Deformation**
  - Transverse
    - ≤0.02 Inches (0.50 mm)

- **Porcelain Mosaic Tile**
  - Tensile Adhesion Strength
    - Dry Conditions (28 days) – Annex B (Clause 5.2)
      - ≥1.50 N/mm²
      - 1.75 – 2.00 N/mm²
    - Heat Ageing Conditions (14 Days Std + 14 Days Oven) – Annex B (Clause 5.2)
      - ≥1.00 N/mm²
      - 1.25 – 1.50 N/mm²
    - Wet Conditions (7 Days Std + 21 Days Water) – Annex B (Clause 5.2)
      - ≥1.00 N/mm²
      - 1.30 – 1.55 N/mm²

- **Tensile Adhesion Strength**
  - Dry Conditions (28 days) – Annex A (Clause 5.1)
    - ≥1.50 N/mm²
    - 1.50 – 2.00 N/mm²
  - Wet Conditions (7 Days Std + 21 Days Water) – Annex A (Clause 5.1)
    - ≥1.00 N/mm²
    - 1.25 – 1.75 N/mm²

The adhesive mortar conforms to ANSI A118.4ET
Coverage details (per 25kg bag):

<table>
<thead>
<tr>
<th>Trowel Size</th>
<th>Average Bed Thickness</th>
<th>Minimum Coverage</th>
<th>Maximum Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 x 6 mm Square Notch</td>
<td>3 mm</td>
<td>72 ft²/6.69 m²</td>
<td>78 ft²/7.25 m²</td>
</tr>
<tr>
<td>9 x 9 mm Square Notch</td>
<td>4.5 mm</td>
<td>48 ft²/4.46 m²</td>
<td>52 ft²/4.83 m²</td>
</tr>
<tr>
<td>12 x 12 mm Square Notch</td>
<td>6 mm</td>
<td>36 ft²/3.34 m²</td>
<td>39 ft²/3.62 m²</td>
</tr>
<tr>
<td>18 x 18 mm Square Notch</td>
<td>9 mm</td>
<td>24 ft²/2.23 m²</td>
<td>26 ft²/2.42 m²</td>
</tr>
<tr>
<td>6mm surface levelling + 12 x 12 mm Square Notch</td>
<td>12 mm</td>
<td>18 ft²/1.67 m²</td>
<td>20 ft²/1.86 m²</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Time</td>
<td>40-45 minutes</td>
</tr>
<tr>
<td>Adjustability Time</td>
<td>40-45 minutes</td>
</tr>
<tr>
<td>Pot Life</td>
<td>4-5 hours</td>
</tr>
<tr>
<td>Time to Foot Traffic</td>
<td>16 - 24 hours</td>
</tr>
</tbody>
</table>

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 (3 mm 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.

- 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 8.25 – 8.75L of water for 25 kg of powder. Use a low speed paddle drill mixer to get a smooth, paste-like consistency. Let the mixture slake or stand 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 8.25-8.75 L clean water to 25 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 3mm also can be used to get bed thickness of 1.5mm. 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 a 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.

c) Wet on Wet System

LATICRETE® 335 Maxi can be used as an alternative to LATICRETE® SBA 20, in slurry form in wet on wet system

NOTES: For tile or stone installations on plywood and wood substrates, 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/stones 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 debonding 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 SpectraLOCK® Pro Premium Grout OR LATAPOXY® 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.

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 respirator mask. Follow the safety norms as per ISO 45001 Occupational Health and Safety Clauses.