

# Laticrete 254R Platinum Rapid

DS-254R.0-0913

# Globally Proven Construction Solutions



# 1. PRODUCT NAME Laticrete 254R Platinum Rapid

## 2. MANUFACTURER

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## **3. PRODUCT DESCRIPTION**

The ultimate one-step, polymer fortified, fast-setting mortar for interior and exterior installation of ceramic tile, stone, quarry tile, pavers and brick. 254 Platinum, designed to just mix with water, has a long open time with unsurpassed initial grab, high early strength along with excellent workability.

## Uses

This adhesive is rated excellent for all interior, exterior and underwater tile fixing applications and as well as providing superior bond strength to all commonly encountered building materials including WBP exterior glue plywood, it has been used to fix heavy & large format tile & stone in the most challenging environments. 254R Platinum Rapid is the ultimate fast setting adhesive for porcelain tiles.

## Advantages

- Contains Anti-fungal protection to inhibit the growth of stain causing mould and mildew in the substrate.
- Exceeds ANSI A118.4 Shear Bond Strength Requirements & ANSI A118.11.
- Rapid Set Mortar; can be grouted in 2–4 hours.
- Ultimate adhesion for porcelain tiles.
- Incredible bond to exterior glue plywood and concrete\*.
- Excellent shear bond strength.
- Superior adhesion for submerged applications.

- High performing smooth creamy formula.
- \* See limitations.

## Suitable Substrates

- Exterior glue WBP plywood\*
- Properly prepared vinyl\*
- Concrete/masonry
- Concrete block
- Cement mortar beds
- Non-water soluble cut-back adhesive\*
- Existing ceramic tile
- Gypsum wallboard\*
- Gypsum plaster\*\*\*
- Plastic laminate\*
- Cement terrazzo
- Cement backer boards\*\*

\*Interior use only.

\*\*Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use. \*\*\* Sealed with 2 coats of NXT PRIMER

## Packaging

20 kg 54 bags per pallet

## Colour

Grey and White

## Approximate Coverage

6.7–8.0 m<sup>2</sup>/20.0 kg bag with a 6 mm x 6 mm notched trowel.

4.0–4.8 m<sup>2</sup>/20.0 kg bag with a 6 mm x 9 mm notched trowel.

3.3–3.8 m²/20.0 kg bag with a 12 mm x 12 mm notched trowel.

Coverage will vary depending on trowel notch size, type and size of tile and substrate.

## Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for one (1) year\* if stored off the ground in a dry area. \* High humidity will reduce the shelf life of bagged product.

## Limitations

- Not for use directly over particle board, luan, Masonite<sup>®</sup> or hardwood floors.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Wait 14 days after the final grouting period before filling water features with water at 70°F (21°C).
- Use LATAPOXY 300 Adhesive for installing green marble, resin backed, or water sensitive tile, stone and agglomerates.

 Adhesives/mastics, mortars and grouts for ceramic tile, pavers, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use a LATICRETE<sup>®</sup> HYDROBAN Waterproofing Membrane (see Section 10 FILING SYSTEMS).

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 (except where local building codes specify more stringent deflection requirements)

## Cautions

Consult MSDS for more safety information.

- Some marbles and other stones have low flexural strength and may not be suitable for installation over wood floors.
- During cold weather, protect finished work from traffic until fully cured.
- Use white mortar for white or light-colored stone.
- Contains portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- DO NOT take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- For green, resin backed and moisture sensitive stones and agglomerates, use LATAPOXY<sup>®</sup> 300 Adhesive (refer to Data Sheet 633.0).
- Keep out of reach of children.

## **4. TECHNICAL DATA**

#### **Applicable Standard**

ANSI A118.4, ANSI A118.11, EN12004 C2FTE-S1

## **Physical Properties**

| Test   | Test Method   | EN12004 C2<br>Specification | Results         |
|--|---------------|-----------------------------|-----------------|
| Early Tensile strength after 6 hours cure time   | EN 1348 – 8.2 | > 0.5 N/mm2                 | 0.6 N/mm2       |
| 28 day cure tensile adhesive strength  | EN 1348 – 8.2 | > 1.0 N/mm2                 | 2.3 – 2.6 N/mm2 |
| 7 day cure 21 day water<br>immersion tensile adhesive<br>strength                      | EN 1348 – 8.3 | > 1.0 N/mm2                 | 1.29-1.53 N/mm2 |
| 14 day cure 14 day heat age tensile adhesive strength                                  | EN 1348 – 8.4 | > 1.0 N/mm2                 | 2.38-3.02 N/mm2 |
| 7 day cure 21 day water<br>immersion 25 freeze/thaw cycle<br>tensile adhesive strength | EN 1348 – 8.5 | > 1.0 N/mm2                 | 1.18-1.42 N/mm2 |
| Open time after 30 minutes   | EN 1346       | > 0.5 N/mm2                 | 1.65-1.95 N/mm2 |
| Slip   | EN1308        | < 0.5 mm                    | 0.2 mm          |
| Transverse deformation   | EN 12008      | > 2.5 mm and<br>< 5 mm      | 3.2-3.6 mm      |

| Test/Test Method  | Results                      | ANSI Specs           |
|---|------------------------------|----------------------|
| Shear Bond, Porcelain Tile, 28 day cure ANSI A118.4–5.2.4 | 400–450 psi<br>(2.8–3.1 MPa) | 200 psi<br>(1.4 MPa) |
| Shear Bond, Porcelain Tile Water                          | 200–220 psi                  | 150 psi              |
| Immersion ANSI A118.4–5.2.3                               | (1.4–1.5 MPa)                | (1.0 MPa)            |
| Shear Bond, Quarry Tile/Plywood                           | 190–200 psi                  | 150 psi              |
| ANSI A118.11  | (1.3–1.4 MPa)                | (1.0 MPa)            |

## **Working Properties**

| Open Time             | 30 minutes |
|-----------------------|------------|
| Pot Life              | 50 minutes |
| Time to Grout         | 2–4 hours  |
| Time to Heavy Traffic | 5 hours    |

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.

## **5. INSTALLATION**

#### Surface Preparation

All surfaces should be between 40°F (4°C) and 90°F (32°C) and structurally sound, clean and free of all dirt, oil, grease, paint, concrete sealers or curing compounds. Rough or uneven concrete surfaces should be made smooth with LATICRETE® NXT LEVEL Latex Portland Cement Underlayment to provide a wood float (or better) finish. Dry, dusty concrete slabs or masonry should be dampened and excess water swept off. Installation can proceed onto a damp surface. New concrete slabs must be damp cured and at least 28 days old prior to application. Movement joints shall be maintained through the tile work from all existing construction or expansion joints in the substrate. Follow BS 5385–5:2009 section 8 for the design & installation of movement joints within the tiled area. Do not cover movement joints with mortar.

## Minimum construction for interior plywood floors:

**SUBFLOOR:** minimum 15 mm thick (WBP) exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced no more than 400 mm maximum. Screw fix plywood at 150 mm (6") centres along sheet ends and 200 mm centres along intermediate supports with coated or hot galvanized screws; allow 3 mm between sheet ends and 6 mm between sheet edges at the perimeter; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.

**UNDERLAYMENT:** WBP 15 mm thick exterior glue plywood fastened at 150 mm (6") centres along sheet ends and 8" (200 mm) centres in the panel field (both directions) with coated or hot galvanized screws; allow 3 mm to 6 mm between sheets and 6 mm between sheet edges and any abutting surfaces; offset underlayment joints from joints in subfloor and stagger joints between sheet ends; glue underlayment to subfloor with construction adhesive. Refer to Technical Data Sheet 152 "Bonding Ceramic Tile, Stone or Brick Over Wood Floors".

#### Mixina

Place clean, potable water into a clean pail. Add Laticrete 254R Platinum Rapid. Use approximately 5 litres of water for 20kg of powder. Mix with a slow speed mixer to a smooth, trowelable consistency. Remix without adding any more water or powder. During use stir occasionally to keep mix fluffy. Do not temper with water.

#### Application

Apply mortar to the substrate with the flat side of the trowel. pressing firmly to work into surface. Comb on additional mortar with the notched side.

Note: Use an appropriately sized notched trowel to ensure full bedding of the tile. Spread as much mortar as can be covered with tile in 20-30 minutes. Use a 6mm x 6mm notch at 10mm centres for general wall tiling and 12mm x 12mm notch at 16mm centres for floor tiling.

Back butter large format tiles > 300 mm x 300 mm to provide full bedding and firm support. Place tiles into wet, sticky mortar and beat in using a beating block and rubber mallet to embed tile and adjust level. Check mortar for complete coverage by periodically removing a tile and inspecting bedding mortar transfer onto back of tile. If mortar is skinned over (not sticky), remove and replace with fresh mortar.

#### Grouting:

Grout all joints within the installation after a minimum of 24 hours curing time at 70°F (21°C). Cooler temperatures require a longer curing time. Grout joints with either Laticrete Permacolour grout or Laticrete Spectralock Premium PRO grout in accordance with the product instructions.

#### Cleaning

Clean tools with water.

## 6. AVAILABILITY AND COST

#### Availability

LATICRETE and LATAPOXY® materials are available worldwide. For Distributor Information, call 0151 486 6101 or visit LATICRETE UK at

#### www.laticrete.co.uk

#### 7. MAINTENANCE

Non-finish LATICRETE and LATAPOXY installation materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

## 8. TECHNICAL SERVICES

#### **Technical Assistance**

Information is available by calling the LATICRETE UK Technical Service Hotline: Tel: 0151 486 6101 Fax: 0151 448 1982 e-mail: sales@laticrete.co.uk

#### **Technical and Safety Literature**

To acquire technical and safety literature, please visit our website at www.laticrete.co.uk

#### 9. DISCLAIMER

The information contained in this document is given in good faith and to the best of our knowledge is true and accurate.

This information is subject to change without notice and it is the responsibility of the user to obtain up to date and current information.

The use of this product is beyond our control and liability is assumed by the user when used incorrectly and not in accordance with LATICRETE guidelines.

The manufacturer is not responsible for any loss or damage arising from incorrect usage of this product.

The specifier or other party responsible for the project must ensure that the details in this data sheet are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this specification.

†United States Invention Patent No.: 6881768 (and other Patents). <sup>^</sup>United States Invention Patent No.: 6784229 (and other Patents).

#### LATICRETE International, Inc.

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