



# 254 PLATINUM™

DS-677-1223

**Globally Proven  
Construction Solutions**



## 1. PRODUCT NAME

254 PLATINUM™

## 2. MANUFACTURER

LATICRETE International, Inc.

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## 3. PRODUCT DESCRIPTION

The ultimate one-step, polymer fortified, thin-set mortar for interior and exterior installation of ceramic tile, porcelain tile, Gauged Porcelain Tile Panels/Slabs (GPTP), stone, quarry tile, pavers and brick. 254 Platinum, designed to just mix with water, has a long open time with unsurpassed adhesion and workability. 254 PLATINUM™ is a LATICRETE approved substitute for 211 Powder mixed with 4237 Latex Additive.

Equipped with Microban Anti-Microbial Protection

### Uses

- Excellent for exterior and underwater applications as well as providing superior bond to exterior glue plywood (interior only) and concrete. The ultimate thin-set for porcelain, thin porcelain, and glass tiles.

### Advantages

- Ideal for Gauged Porcelain Tile Panels/Slabs (GPTP).

- Equipped with anti-microbial technology to protect the treated article.
- Exceeds ANSI A118.4, A118.11 and ANSI A118.15.
- Conforms to ISO 13007-1 with a classification of C2TES2P1.
- Ultimate adhesion for porcelain and glass tiles.
- Incredible bond to exterior glue plywood and concrete\*.
- Superior for exterior and submerged applications.
- High shear bond strength.
- Smooth creamy formula.
- 25 Year System Warranty\*\*.
- ASTM C627 Extra Heavy (TCNA)25 Year System Warranty\*\*.
- Unique color options are now available in all LATICRETE® grout colors when mixed with PERMACOLOR® Select Color Kits¥ (254 PLATINUM white only).
- \* See limitations.
- \*\* When used as part of the LATICRETE 25 Year System Warranty DS 025.0.
- ¥ LATICRETE makes no guarantee on color match to our grout color card and color tools. This process/method can be used to create a colored adhesive mortar to facilitate the installation of translucent, transparent, opaque glass mosaics and other finishes where cleaning thin set mortar out of the joints is a challenge. Do not use colored adhesive mortar as a substitute for grout. Always conduct a test area to validate performance and results.
- For use as a bond coat between pours when using Laticrete 3D printable mortars. Refer to M68 Printing Mortar PDS-36635 for more information.

### Suitable Substrates

- Cement Mortar Bed
- Existing Ceramic Tile and Stone
- Properly Prepared Vinyl Or Other Resilient Tile (Interior Only)
- Properly Prepared Vinyl Or Other Resilient Tile (Interior Only)
- Concrete and Masonry Surfaces
- Concrete Block
- Cement Plaster
- Non-Water Soluble Cut-Back Adhesive
- Non-Water Soluble Cut-Back Adhesive
- Cement Terrazzo

- Cement Backer Board (Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use)
- Gypsum Wallboard (Interior use only, non-wet areas)
- Gypsum Plaster (Interior use only, non-wet areas)
- Plastic Laminate (Interior Only)
- STRATA\_MAT
- HYDRO BAN Board (Consult product datasheet (DS 040.0) for specific installation recommendations)
- Exterior Glue Plywood (Interior Only)

### Packaging

- 50 lb bag (22.7 kg); 56 bags per pallet

**Color:** Grey and White

### Approximate Coverage

80–95 ft <sup>2</sup> /50 lb bag (7.4–8.8 m <sup>2</sup> /22.7 kg bag) with 1/4" x 1/4" (6 mm x 6 mm) notched trowel.
60–70 ft <sup>2</sup> / 50 lb bag (5.6–6.5 m <sup>2</sup> /22.7 kg bag) with 1/4" x 3/8" (6 mm x 9 mm) notched trowel.
35–40 ft <sup>2</sup> / 50 lb bag (3.2–3.7 m <sup>2</sup> /22.7 kg bag) with 1/2" x 1/2" (12 mm x 12 mm) notched trowel.

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

### Shelf Life

Advanced plastic bag provides two (2) year shelf life. (non-rapid versions only) \*\*\*High humidity will reduce the shelf life of bagged product.

### Limitations

- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Not for use directly over particle board, luan, Masonite® or hardwood floors.
- 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® 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 SDS for more safety information

- Contains portland cement and silica sand. Causes severe skin burn and serious eye damage. May cause an allergic skin reaction. Wear protective gloves, protective clothing, and eye protection. Wash thoroughly after handling.
- Silica sand may cause cancer, respiratory irritation or serious lung damage. Do not breathe dust. Wear respiratory protection in dusty areas.
- Some marbles and other stone 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.
- Wait 14 days after the final grouting period before filing water features with water at 70°F (21°C).
- DO NOT take internally.
- For white and light-colored marbles use white 254 PLATINUM. For green marble, resin backed tile and stone and other moisture sensitive marbles and agglomerates, use LATAPOXY® 300 Adhesive (refer to Data Sheet 633.0).
- Keep out of reach of children.

## 4. TECHNICAL DATA

### VOC/LEED Product Information

This product has been certified for Low Chemical Emissions (ULCOM/GG UL2818) under the UL GREENGUARD Certification Program for Chemical Emissions for Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment.

Total VOC Content of product in unused form is 0.00 g/L.

### Applicable Standard

- ANSI A118.4, ANSI 118.11, ANSI 118.15, EN 12004, ISO 13007
- This product has a cradle-to-gate (with options) Product-Specific (Type III) Environmental Product Declaration. The PCR review, life cycle assessment and declaration were independently verified by UL Environment in accordance with ISO 14025, ISO 14040 and ISO 14044.

### Physical Properties

Test	Test Method	Results	Specification
28 day Cure Porcelain Tile Shear Strength	ANSI A118.15 7.2.5	475–575 psi (3.3–4.0 MPa)	>400 psi (2.76 MPa)
Shear Bond Porcelain Tile Water Immersion	ANSI A118.15 7.2.4	250-300 psi (1.7-2.4 MPa)	>200 psi (1.38 MPa)
28 day Heat Aging Tile Shear Strength	ANSI A118.15 7.2.7	600-700 psi (4.1-4.8 MPa)	>400 psi (2.76 MPa)
28 day Cure Quarry Tile to Plywood Shear Bond	ANSI A118.11 4.1.2	250-300 psi (1.7-2.1 MPa)	>150 psi (1.0 MPa)

Test	Test Method	ISO 13007-1 C2 Specification	Results
28 Day Cure Tensile Adhesive Strength	ISO 13007-2 4.4.2	1 MPa (145 psi)	1.8 – 2.6 MPa (261-377 psi)
7 Day Cure 21 Day Water Immersion Tensile Adhesive Strength	ISO 13007-2 4.4.3	1 MPa (145 psi)	1.3-1.5 MPa (174-221 psi)
14 Day Cure 14 Day Heat Age Tensile Adhesive Strength	ISO 13007-2 4.4.4	1 MPa (145 psi)	2.4-3.0 MPa (345-438 psi)
7 Day Cure 21 Day Water Immersion 25 Freeze/Thaw Cycle Tensile Adhesive Strength	ISO 13007-2 4.4.5	1 MPa (145 psi)	2-1.7 MPa (171-247 psi)
Open Time After 30 Minutes	ISO 13007-2 4.1	0.5 MPa (73 psi)	1.3-1.9 MPa (190-283 psi)
Slip	ISO 13007-2 4.2	Less than or equal to 0.5 mm (0.02 inches)	0.5 mm (0.02 inches)
Transverse Deformation	ISO 13007-2 4.5	Greater than or equal to 2.5 mm (0.1 in.) and less than 5 mm (0.2 in.)	3.2-3.6 mm (0.13-0.14 in.)

### Working Properties

Open Time	40 minutes
Pot Life	2 hours
Time to Heavy Traffic	24 hours
Wet Density	13.8 lb/gal. (1.65 g/cm <sup>3</sup> )

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 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 may be made on a damp surface. Concrete slabs must be plumb and true to within 1/4" (6 mm) in 10 ft (3 m).

*Note: 254 Platinum does not require a minimum cure time for concrete slabs. 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.*

1. Installer must verify that deflection under all live, dead and impact loads of interior plywood floors does not exceed industry standards of L/360 for ceramic tile and brick or L/480 for stone installations where L=span length.
2. Minimum construction for interior plywood floors. **SUBFLOOR:** 5/8" (15 mm) thick exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced 16" (400 mm) o.c. maximum; fasten plywood 6" (150 mm) o.c. along sheet ends and 8" (200 mm) o.c. along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) between sheet ends and 1/4" (6 mm) between sheets edges; all sheet ends must be supported by a framing member; glue sheets to joints with construction adhesive.  
**UNDERLAYMENT:** 5/8" (15 mm) thick exterior glue plywood fastened 6" (150 mm) o.c. along sheet ends and 8" (200 mm) o.c. in the panel field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" (3 mm) to 1/4" (6 mm) between sheets and 1/4" (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 for

complete details.

### Mixing

Place clean, potable water into a clean pail. Use approximately 5.5 qts (5.2 L) of water for 50 lbs (22.7 kg) of powder. (To mix smaller quantities use 3.6 parts powder to 1 part water.) When using to install Large Thin Porcelain Tile use up to 6 qts (5.7 L) of water for 50 lbs (22.7kg) of powder. Add 254 Platinum. Mix by hand or with a slow speed mixer to a smooth, trowelable consistency. Allow mortar to slake for 5–10 minutes. Remix with out adding any more water or powder. During use, stir occasionally to keep mix fluffy. DO NOT temper with water.

### Mixing with PERMACOLOR® Select Color Kits (254 Platinum white only)

Requires 2 PERMACOLOR Select Color Kits. (Each Color Kit contains 2 individual color packets, use all 4 color packets) Place water in a clean mixing container. Remove color packets from the cardboard container as well as the protective plastic sleeve. The internal bag is a water dispersible packet – when using the 50 lbs. (22.7kg) bag of 254 Platinum, drop all color packs directly in to water in clean mixing container. Mix with a drill mixer until pigment is dispersed evenly in container and the dispersible packet is no longer visible. Add 254 Platinum and mix as directed above. Please note that additional water may be necessary when using PERMACOLOR Select color Kits.

### 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 proper sized notched trowel to ensure full bedding of the tile. Spread as much mortar as can be covered with tile in 15–20 minutes. Back butter large tiles >8" x 8" (>200 mm x 200 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 installation after a minimum of 24 hours curing time at 70°F (21°C). Grout with SPECTRALOCK®<sup>+</sup> PRO Premium Grout<sup>†</sup>, SPECTRALOCK PRO Grout<sup>†</sup>, PERMACOLOR Select NS or PERMACOLOR Grout<sup>^^^</sup>

### Cleaning

Clean tools and tile work with water while mortar is fresh.

## 6. AVAILABILITY AND COST

### Availability

LATICRETE materials are available worldwide.

### For Distributor Information, Call:

Toll Free: 1.800.243.4788

Telephone: +1.203.393.0010

For on-line distributor information, visit LATICRETE at

[laticrete.com](http://laticrete.com)

### Cost

Contact a LATICRETE Distributor in your area.

## 7. WARRANTY

See 10. FILING SYSTEM:

- 25 Year System Warranty (US - English)
- 5 Year System Warranty (US - English)
- 10 Year System Warranty (US - English)
- 1 Year Product Warranty (US - English)
- LATICRETE Lifetime System Warranty (US - English)

## 8. 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.

## 9. TECHNICAL SERVICES

### Technical Assistance

Information is available by calling the LATICRETE

Technical Service Hotline:

Toll Free: 1.800.243.4788, ext. 1235

Telephone: +1.203.393.0010, ext. 1235

Fax: +1.203.393.1948

### Technical and Safety Literature

To acquire technical and safety literature, please visit our website at [laticrete.com](http://laticrete.com).

## 10. FILING SYSTEM

Additional product information is available on our website at [laticrete.com](http://laticrete.com). The following is a list of related documents:

- DS 230.13: LATICRETE Product Warranty
- DS 230.05: LATICRETE 5 Year System Warranty (United States and Canada)
- DS 230.10: LATICRETE 10 Year System Warranty (United States and Canada)

- DS 230.15: LATICRETE 15 Year System Warranty – For Steel or Wood Framed Exterior Facades (United States and Canada)
- DS 025.0: LATICRETE 25 Year System Warranty (United States and Canada)
- DS 230.99: LATICRETE Lifetime System Warranty
- DS 230.1: 4237 Latex Additive
- DS 236.0: 9235 Waterproofing Membrane
- DS 239.0: 211 Powder
- DS 250.0: PERMACOLOR® Grout<sup>^^^</sup>
- DS 260.0: STRATA\_MAT™
- DS 281.0: PERMACOLOR Select
- DS 410.0: HYDRO BAN® Sheet Membrane
- DS 633.0: LATAPOXY® 300 Adhesive
- DS 663.0: HYDRO BAN
- DS 681.0: SPECTRALOCK® PRO Premium Grout†
- DS 685.0: SPECTRALOCK PRO Grout†
- TDS 143: Slurry Bond Coats – When and What to Use
- TDS 152: Bonding Ceramic Tile, Stone or Brick over Wood Floors
- DS 026.0 STRATA\_MAT™
- DS 116.0 PERMACOLOR Select NS

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