254 Platinum

DS-677.0-0314

Globally Proven Construction Solutions



1. PRODUCT NAME
254 Platinum

2. MANUFACTURER
LATICRETE International, Inc.
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Telephone: +1.203.393.0010, ext. 235
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3. PRODUCT DESCRIPTION
The ultimate one-step, polymer fortified, thin-set 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 adhesion and workability. 254 Platinum is a LATICRETE approved substitute for 211 Powder mixed with 4237 Latex Additive.

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 and glass tiles.

Advantages
- Contains Microban® antimicrobial protection to inhibit the growth of stain causing mold and mildew in the substrate.
- Exceeds ANSI A118.4, A118.15 and ANSI A118.11.
- Conforms to ISO 13007 with a classification of C2TES1P1.
- 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 Tile & Stone System Warranty**.

* See limitations.
** When used as part of the LATICRETE 25 Year Tile & Stone System Warranty DS 025.0APD.

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

^ Interior use only.
^^Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

Packaging
50 lb bag (22.7 kg); 54 bags per pallet

Color: Grey and White

Approximate Coverage

80–95 ft² /50 lb bag (7.4–8.8 m²/22.7 kg bag) with 1/4" x 1/4" (6 mm x 6 mm) notched trowel.
50–60 ft²/ 50 lb bag (4.6–5.6 m²/22.7 kg bag) with 1/4" x 3/8" (6 mm x 9 mm) notched trowel.
40–45 ft²/ 50 lb bag (3.7–4.2 m²/22.7 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
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
- 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 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 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.
- 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.
- Wait 14 days after the final grouting period before filing water features with water at 70°F (21°C).
- DO NOT take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- For white and light–colored marbles use 254 Platinum WHITE. 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 pounds/gallon (grams/liter) of product in unused form is 0.00 lb/gal (0.00 g/l).

Applicable Standard

ANSI A118.4, ANSI 118.11, ANSI 118.15, EN 12004, ISO 13007

Physical Properties ANSI 118.4

Test	Test Method	Results	Specification
28 day Cure Porcelain Tile Shear Strength	ANSI A118.4 7.2.5	450–520 psi (3.1–3.6 MPa)	>200 psi (1.38 MPa)
Shear Bond Porcelain Tile Water Immersion	ANSI A118.4 7.2.4	300 psi (2.1 MPa)	>150 psi (1.0 MPa)
28 day Cure Quarry Tile to Plywood Shear Bond	ANSI A118.11 4.1.2	265 psi (1.83 MPa)	>150 psi (1.0 MPa)

Physical Properties ANSI 118.15

Test	Test Method	Results	Specification
28 day Cure Porcelain Tile Shear Strength	ANSI A118.15 7.2.5	475–520 psi (3.2–3.6 MPa)	>400 psi (2.76 MPa)
Shear Bond Porcelain Tile Water Immersion	ANSI A118.15 7.2.4	275-300 psi (2.0-3.6 MPa)	>200 psi (1.38 MPa)
28 day Heat Aging Tile Shear Strength	ANSI A118.15 7.2.7	770-930 psi (5.3-6.4 MPa)	>400 psi (2.76 MPa)

Data from TCA 055-55 and NAP126

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)	2.3 – 2.6 MPa (333-377 psi)
7 day cure 21 day water immersion tensile adhesive strength	ISO 13007-2 4.4.3	1 MPa (145 psi)	1.29-1.53 MPa (187-221 psi)
14 day cure 14 day heat age tensile adhesive strength	ISO 13007-2 4.4.4	1 MPa (145 psi)	2.38-3.02 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)	1.18-1.42 MPa (171-206 psi)
Open time after 30 minutes	ISO 13007-2 4.1	0.5 MPa (73 psi)	1.65-1.95 MPa (239-283 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.)

254 Platinum is ISO 13007-1 C2TES1P1

Working Properties

Open Time	40 minutes
Pot Life	2 hours
Time to Heavy Traffic	24 hours
Wet Density	103 lbs/ft^3 (1653 kg/m^3)

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. Add 254 Platinum. Use approximately 5.5 qts (5.2 ℓ) of water for 50 lbs (22.7 kg) of powder. 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.
Note: For use as a slurry bond coat; mix 7 quarts (6.6 ℓ) water to a 50 lb (22.7 kg) bag of 254 Platinum. Refer to Technical Data Sheet 143 for more information.

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®† PRO Premium Grout†, SPECTRALOCK PRO Grout†, PERMACOLOR®^^^ Grout mixed with water or 1500 Sanded Grout or 1600 Unsanded Grout gauged with 1776 Grout Enhancer or with water.

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

6. AVAILABILITY AND COST

Availability
LATICRETE® and LATAPOXY® materials are available worldwide.

For Distributor Information, Call:
Toll Free: 1.800.243.4788
Telephone: +1.203.393.0010
For on-line Distribution information, visit LATICRETE at **www.laticrete.com**

Cost
Contact a LATICRETE/LATAPOXY Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM
DS 230.13: LATICRETE Product Warranty (United States and Canada)
A component of:
DS 230.05APD: LATICRETE 5 Year Tile & Stone System Warranty (United States and Canada)
DS 230.10APD: LATICRETE 10 Year Tile & Stone System Warranty (United States and Canada)
DS 230.15APD: LATICRETE 15 Year Tile & Stone System Warranty – For Steel or Wood Framed Exterior Facades (United States and Canada)
DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty
DS 230.99: LATICRETE Lifetime Tile & Stone System Warranty

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. 235
Telephone: +1.203.393.0010, ext. 235
Fax: +1.203.393.1948

Technical and Safety Literature
To acquire technical and safety literature, please visit our website at **www.laticrete.com.**

10. FILING SYSTEM

Additional product information is available on our website at **www.laticrete.com.** The following is a list of related documents:

DS 230.13: LATICRETE® Product Warranty (United States and Canada)
DS 230.05APD: LATICRETE 5 Year Tile & Stone System Warranty (United States and Canada)
DS 230.10APD: LATICRETE 10 Year Tile & Stone System Warranty (United States and Canada)
DS 230.15APD: LATICRETE 15 Year Tile & Stone System Warranty – For Steel or Wood Framed Exterior Facades (United States and Canada)
DS 025.0APD: LATICRETE 25 Year Tile & Stone System Warranty
DS 230.99: LATICRETE Lifetime Tile & Stone System Warranty
DS 230.1: 4237 Latex Additive
DS 236.0: 9235 Waterproofing Membrane
DS 239.0: 211 Powder
DS 250.0: PERMACOLOR®^^^ Grout
DS 256.0: 1500 Sanded Grout
DS 258.0: 1600 Unsanded Grout
DS 264.0: 1776 Grout Enhancer
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

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

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