TRI-LITE®

DS-320-0326

Globally Proven Construction Solutions

1. PRODUCT NAME
TRI-LITE®

2. MANUFACTURER
LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION
A lightweight, high performance tri-purpose mortar designed for large and heavy tile, thin-bed and wall installations.

Uses
- For floor and wall installations of interior and exterior ceramic tile, porcelain tile and stone
- Large and Heavy Tile mortar used as a bonding mortar from a minimum of 3/32" (2.4mm) up to 3/4" (19mm) thickness
- Ideal for most types of thin-set applications

Advantages
- Lightweight formula. A 30 lb (13.6 kg) bag provides the same coverage as a 50 lb (22.7 kg) bag of traditional mortar.
- Incredible non-sag performance
- including large and heavy tile
- Excellent Large Heavy Tile performance
- 3/4" (19 mm) thick without shrinkage
- Exceeds ISO 13007 - C2TES1P1 classification
- Bonds to many suitable substrates
- Smooth, creamy, easy-to trowel consistency
- Unique color options are now available in all LATICRETE® grout colors when mixed with PERMACOLOR® Select Color Kits*
- creamy
- easy-to trowel consistency
- Exceeds ANSI A118.15 HET, A118.4 and A118.11

Suitable Substrates
- Brick Masonry
- Cement Backer Board
- Cement Plaster
- Cement Terrazzo
- Concrete
- Concrete Masonry
- Non-Water Soluble Cut-Back Adhesive
- Non-Water Soluble Cut-Back Adhesive
- Vinyl Or Other Resilient Tile
- Gypsum Wallboard
- Exterior Glue Plywood (Interior Only)
- Plastic Laminate
- Ceramic Tile and Stone
- Ceramic Tile and Stone

Packaging
- 30LB (13.6KG) BAG

Approximate Coverage
30 lb (13.6 kg) bag

Trowel Size	ft²	m²
1/4" x 1/4" (6 mm x 6 mm) notched trowel	80 - 95	7.4 - 8.8
1/4" x 3/8" (6 mm x 9 mm) notched trowel	60 - 70	5.6 - 6.5
1/2" x 1/2" (12 mm x 12 mm) notched trowel	40 - 47	3.7 - 4.4

Shelf Life
Factory sealed containers of this product are guaranteed to be of first quality for two (2) years 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 OSB, interior glue plywood, particle board, luan, Masonite® or hardwood floors.

- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- 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 SYSTEM).
- Not for use in submerged applications. For these applications, use 254 Platinum.
- Not a remedy to level or flatten substrates. Use a suitable LATICRETE underlayment for this purpose.

Cautions

- Consult SDS for more safety information.
- Some marbles and other stones have low flexural strength and might not be suitable for installation over wood floors.
- Use LATAPOXY® 300 Adhesive for installing green marble or water sensitive stone and agglomerates, and resin backed tiles and stones.
- During cold weather, protect finished work from traffic until fully cured.
- Contains portland cement and silica sand. Causes severe skin burns and serious eye damage. Wear protective gloves/protective clothing/eye protection/face protection. In case of contact, flush thoroughly with water.
- DO NOT take internally. Silica sand may cause cancer, respiratory irritation or serious lung problems. Do not breathe dust. Wear a respirator in dusty areas.
- For white and light-colored stones, use TRI-LITE™ (white).
- Keep out of reach of children.

4. TECHNICAL DATA

Applicable Standard

- This product currently has a Product Specific (Type III) Environmental Product Declaration (EPD). 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

ANSI A118.15

Test	ANSI A118.15 Specification	Results
Porcelain Tile Shear Strength ANSI A118.15 7.2.2: 24 hrs	100 psi	220-250 psi
(0.6 MPa)	(1.5-1.7 MPa)	
Porcelain Tile Shear Strength ANSI A118.15 7.2.3: 7 days	300 psi	460-500 psi
(2.0 MPa)	(3.2-3.4 MPa)	
Porcelain Tile Shear Strength ANSI A118.15 7.2.4: 7d Water Immersion	200 psi	270-300 psi
(1.3 MPa)	(1.9-2.1 MPa)	
Porcelain Tile Shear Strength ANSI A118.15 7.2.5: 28 days	400 psi	420-470 psi
(2.7 MPa)	(2.9-3.2 MPa)	
Quarry Tile Shear Strength ANSI A118.15 7.3.2: 28 days	150 psi	320-340 psi
(1.0 MPa)	(2.2-2.3 MPa)	
Wall Tile Shear Strength ANSI A118.15 7.1.2: 7 days	450 psi	480-500 psi
(3.1 MPa)	(3.3-3.4 MPa)	
Wall Tile Shear Strength ANSI A118.15 7.1.3: 7d Water Immersion	250 psi	270-300 psi
(1.7 MPa)	(1.9-2.1 MPa)	
Sag	<0.50 mm	0 mm
Open Time: 20 minutes at 28 days ANSI A118.15 5.3	75 psi	140-180 psi
(0.5 MPa)	(1 – 1.2 MPa)	
Open Time: 30 minutes at 28 days ANSI A118.15 5.3	75 psi	75-85 psi
(0.5 MPa)	(0.5-0.6 MPa)	

Working Properties

Pot Life 70°F (21°C)	4 hours
Time To Traffic	24 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 a LATICRETE® latex fortified underlayment or leveling mortar to provide a proper finish. 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 application. All slabs must be plumb and true to within 1/4" (6 mm) in 10 ft (3 m). 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. 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 think bed stone installations where L=span length (except where local building codes specify more stringent deflection requirements). 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 sheet edges at the perimeter; 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”.
Mixing: Place clean potable water into a clean pail. For a 30 lb (13.6 kg) bag **For Walls and Large and Heavy Tile** (Medium Bed) Applications Place 4.6-4.8 qts (4.4-4.5 L) of clean water in a pail and slowly add the entire bag of TRI-LITE.)To mix smaller quantities use 4 parts powder to 1 part water.) Mix with slow speed mixer for one minute. DO NOT temper with water. Allow to slake for 5 minutes, remix and use.
For **Thin Bed Applications** Place 5.0-5.2 qts (4.8-4.9 L) of clean water in a pail and slowly add the entire bag of TRI-LITE. (To mix smaller quantities use 3.7 parts powder to 1 part water.) Mix with slow speed mixer for one minute or until a creamy smooth consistency is reached. Allow to slake for 5 minutes, remix and use.
Mixing with PERMACOLOR® Select Color Kits (TRI-LITE™ White only) Requires two (2) PERMACOLOR® Select Color Kits. (Each Color Kit contains two (2) individual color packets, use all four (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 30 lbs. (13.6kg) bag of TRI-LITE™, 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 TRI-LITE and mix as directed above. Please note that additional water may be necessary when using PERMACOLOR Select color Kits.
Application: Walls: Key materials into substrate thoroughly. Comb on additional mortar with the notched side, use 1/4" x 3/8" (6 mm x 9 mm) notched trowel. Back butter all tile and stone 8" x 8" (200 mm x 200 mm) or larger to provide full bedding of the veneer. Note: Use proper sized notched trowel to ensure full bedding of the tile. Spread only enough mortar that can be covered with tile within 15–20 minutes at 70°F (21°C). Place tile and beat in with rubber mallet to embed. Adjust as necessary. Check mortar for complete coverage by periodically removing a tile and inspecting the transfer onto the back of the tile. The size and weight of the veneer will vary. Conduct a small test area for non-sag performance. Due to job site conditions and differences in finish material types; ledger boards, shims, wedges or spacers may be required to maintain finish levels and heights.
Large and Heavy Tile: Key the mortar to the substrate with the flat side of the trowel. Press firmly to work into the surface. Comb on additional mortar with the notched side. Use 1/2" x 1/2" (12 mm x 12 mm) or 3/4" (18 mm) half loop trowel. Note: Use the 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 tile into wet sticky mortar and beat in using a beating block and rubber mallet to embed tile and adjust until 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®^^^ and PERMACOLOR Select.
Cleaning Clean tools with water.

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**

Cost
Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:
- 25 Year System Warranty (US) (English)
- 1 Year Product Warranty (US) (English)

8. MAINTENANCE

LATICRETE and LATAPOXY grouts require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY 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.**

10. FILING SYSTEM

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

- DS 230.13: LATICRETE Product Warranty
- DS 230.0: LATICRETE 25 Year System Warranty (United States and Canada)

United States Invention Patent No.: 6,881,768 (and other Patents)

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