



SURE SET™

DS-261-0420

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

SURE SET™

2. MANUFACTURER

LATICRETE International, Inc.

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3. PRODUCT DESCRIPTION

SURE SET is a superior polymer fortified cementitious thin-set which eliminates the need for back buttering large format tile and stone. SURE SET is mixed with water and has unique wetting characteristics which yield maximum coverage on larger tile and stone. This also allows the installer to quickly and easily install tile in a drop, adjust and go method.

Equipped with Microban Anti-Microbial Protection

Uses

- SURE SET is designed for interior installations on floors for large format tile and stone allowing complete coverage without back buttering. SURE SET can be used in thin bed or large and heavy tile applications in both wet and dry areas.

Advantages

- Maximum coverage without back buttering

- Drop, adjust and go application
- Any size tile and stone
- Thin-bed or medium-bed* applications
- Horizontal and vertical** installations
- Wet and dry applications
- Equipped with antimicrobial technology to protect the treated article
- Exceeds ANSI A118.4*** and A118.11
- UL GREENGUARD Gold certified
- "Extra Heavy" rating using ASTM C627 Robinson Floor Test
- * Up to 3/8" (10mm) thickness
- **Tile may need to be supported, do not use over 1/4 x 3/8 trowel
- *** Does not include ANSI A118.4 Freeze Thaw requirements.

Suitable Substrates

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

Packaging

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

Color

Grey and White

Approximate Coverage

Approximately 80–95 ft ² /50 lb bag (7.4–8.8 m ² /22.7 kg bag) with 1/4" x 1/4" (6 mm x 6 mm) notched trowel.
Approximately 55–70 ft ² /50 lb bag (5.1–6.5 m ² /22.7 kg bag) with 1/4" x 3/8" (6 mm x 9 mm) notched trowel.
Approximately 40–55 ft ² /50 lb bag (3.7–5.1 m ² /22.7 kg bag) with 1/2" x 1/2" (12 mm x 12 mm) notched trowel

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

- Not for use directly over OSB particle board, luan, interior glue plywood, 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).
- Not for use in submerged or steam room applications. For these applications please use 254 Platinum.
- Interior applications only.
- 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.

Cautions

- Consult SDS for more safety information.
- For white and light-colored marbles, use SURE SET™ white.
- During cold weather, protect finished work from traffic until fully cured.
- Use LATAPOXY® 300 Adhesive for installing green marble, water sensitive stone, resin backed stone or tile and agglomerates.
- Contains portland cement and silica sand. Causes severe skin burns and eye damage. Wear protective gloves, eye protection and protective clothing. In case of contact, flush thoroughly with water.
- Do not take internally. Silica sand may cause cancer, respiratory problems or serious lung problems. Do not breathe dust. Wear a respirator in dusty areas.
- 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)

Applicable Standard

- 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	Specification	Result
28 day Cure Porcelain Tile Shear Strength	ANSI A118.4 5.2.4	>200 psi (1.4 MPa)	380-430 psi (2.6-3.0 MPa)
Shear Bond Porcelain Tile Water Immersion	ANSI A118.4 5.2.3	>150 psi (1.0 MPa)	360-390 psi (2.5 -2.7 MPa)
28 day Cure Quarry Tile to Plywood Shear Bond	ANSI A118.11 4.1.2	>150 psi (1.0 MPa)	210–250 psi (1.5–1.7 MPa)

Test	Test Method	ISO13007-1 Specification	Results
20 minute Open Time	ISO 13007 - 4.1	0.5 MPa (72 psi)	1-1.2 MPa (145-174 psi)
30 minute Open Time	ISO 13007 - 4.1	0.5 MPa (72 psi)	0.6-0.8 MPa (87-116 psi)
28 day Cure Tensile Bond	ISO 13007 4.4.4 .2	1 MPa (145 psi)	2 - 2.2 MPa (290-319 psi)
7 day Cure 21 day Water Immersion Tensile Bond	ISO 13007 4.4.4 .3	1 MPa (145 psi)	1.1-1.3 MPa (159-188 psi)
14 day Cure 14 day Heat age at 70°C Tensile Bond	ISO 13007 4.4.4 .4	1 MPa (145 psi)	2.2-2.4 MPa (319-348 psi)
7 day Cure 21 day Water Immersion 25 Cycle Freeze/Thaw Tensile Bond	ISO 13007 4.4.4 .5	1 MPa (145 psi)	1.7-1.9 MPa (247-276 psi)
28 day Cure Tensile Bond to Plywood	ISO 13007 4.4.4 .2	0.5 MPa (72 psi)	0.5-0.6 MPa (72-87 psi)
Classification		C2EP1	

Working Properties

Open Time	50 minutes
Pot Life	2-4 hours
Time to Heavy Traffic	24 hours
Wet Density	87.4 lbs/ft ³ (1400 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.

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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. New concrete slabs shall be damp cured and 28 days old before application. Maximum variation in the slab shall not exceed 1/4" in 10' (6 mm in 3 m) and 1/16" in 1' (1.5 mm in 300 mm). 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 joists 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 joists 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. Add SURE SET™. Use approximately 4.7 – 5.2 qts (4.4 – 4.9 L) of water for 50 lbs (22.7 kg) of powder. (To mix smaller quantities use 3.4 parts powder to 1 part water) Mix by hand or with a slow speed mixer to a smooth, trowelable consistency. Allow mortar to slake for 5 – 10 minutes. 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 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. Place tiles into wet, sticky mortar, adjust and go. 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† or PERMACOLOR® Grout??.

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

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

- DS 230.05: 5 Year System Warranty
- DS 230.13: 1 Year Product Warranty

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 230.05: LATICRETE 5 Year System Warranty (United States and Canada)
- DS 236.0: 9235 Waterproofing Membrane
- DS 250.0: PERMACOLOR Grout??
- DS 633.0: LATAPOXY 300 Adhesive

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- DS 663.0: HYDRO BAN®
- DS 677.0: 254 Platinum
- DS 681.0: SPECTRALOCK PRO Premium Grout†
- DS 685.0: SPECTRALOCK PRO Grout†
- TDS 152: Bonding Ceramic Tile, Stone or Brick Over Wood Floors

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