



# 333 Super Flexible Additive

DS-266.0-0808



Mondavi Theater, CA  
Architect: Boora Architects and Arup

## 1. PRODUCT NAME

LATICRETE® 333 Super Flexible Additive

## 2. MANUFACTURER

LATICRETE International, Inc.  
1 LATICRETE Park North  
Bethany, CT 06524-3423 USA

Telephone: +1.203.393.0010, ext. 235  
Toll Free: 1.800.243.4788, ext. 235  
Fax: +1.203.393.1684  
Internet: [www.laticrete.com](http://www.laticrete.com)

## 3. PRODUCT DESCRIPTION

LATICRETE 333 Super Flexible Additive is an extraordinarily flexible latex additive for use with thin set mortars and other cement mixes. LATICRETE 333 Super Flexible Additive is specially formulated to provide a strong, super flexible bond to most surfaces, including plywood. Recommended for interior and exterior use with a LATICRETE thin-set.

### Uses

Used in place of water with thin set mortars for installing: ceramic tile, brick, natural stone, and porcelain tile.

### Advantages

- Makes high strength shock resistant mortar.
- Strong, super flexible bond to many surfaces.
- Safe and water cleanable, non-hazardous, non-flammable liquid.
- Easy to use.
- Sag resistant.

### Suitable Substrates

- Concrete
- Cement mortar beds
- Ceramic tile and stones
- Concrete masonry
- Cement plaster
- Brick masonry
- Exterior glue plywood\*
- Asphalt adhesives\*
- Plastic laminate\*
- Cement terrazzo
- Gypsum wallboard\*
- Vinyl or other resilient tile\*
- Cement backer board\*\*

\* Interior use only.

\*\* Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

### Packaging

- 1 US gallon (3.8 l) jug; 6 jugs per carton; 28 cartons per pallet
- 2 US gallon (7.6 l) pail; 40 pails per pallet
- 5 US gallon (19 l) pail; 36 pails per pallet

### Approximate Coverage

35-40 ft<sup>2</sup> per US gallon (0.85-1.00 m<sup>2</sup> per liter) of LATICRETE® 333 Super Flexible Additive using a 1/4" x 1/4" (6 x 6 mm) notched trowel.

### Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for five (5) years if stored at temperatures >32°F (0°C) and <110°F (43°C).

## Limitations

- **DO NOT** bond to particle board, luan, Masonite, or hardwood surfaces.
- Adhesives/mastics, mortars for ceramic tile, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use LATICRETE® 9235 Waterproofing Membrane (see Section 10 **FILING SYSTEMS**).
- Exterior use limited to residential/light commercial.
- Not for use in areas subject to water immersion.

**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

- Use LATAPOXY® 300 Adhesive for installing green marble, water sensitive stone and agglomerates and resin backed tiles and stones.
- Use a white thin set mortar when installing white or light colored stones.
- During cold weather, protect finished work from traffic until fully cured.
- Keep out of reach of children.

## 4. TECHNICAL DATA

### Applicable Standard

ANSI A118.4 and A118.11

### Performance Properties

LATICRETE 333 Super Flexible Additive mixed with LATICRETE 272 Mortar

Test	Test Method	Results	Specification
28 day Cure Porcelain Tile Shear Strength	ANSI A118.4 5.2.4	400–600 psi (2.76–4.14 MPa)	>200 psi (1.38 MPa)
Shear Bond Porcelain Tile Water Immersion	ANSI A118.4 5.2.3	150–180 psi (1.03–1.24 MPa)	>150 psi (1.0 MPa)
28 day Cure Quarry Tile to Plywood Shear Strength*	ANSI A118.11 4.1.2	350–370 psi (2.4–2.55 MPa)	>200 psi (1.38 MPa)
Robinson Floor Test	ASTM C-627	14 Cycles (TCA Extra Heavy)	

From Report NAP078 and TCA 026-06  
\* Mixed with LATICRETE® 317

### Working Properties

LATICRETE 333 Super Flexible Additive mixed with LATICRETE 272 Mortar (70°F [21°C])

Open Time	35 minutes
Pot Life	3 hours
Time to Heavy Traffic	24 hours
Wet Density	92 lbs/ft <sup>3</sup> (1480 kg/m <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 LATICRETE 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.

**Note:** Latex portland cement mortars do not require a minimum cure time for concrete slabs. 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.

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

Stir LATICRETE 333 Super Flexible Additive thoroughly before use. Use approximately 2 gal (8 l) of LATICRETE 333 Super Flexible Additive to 50 lbs (22.7 kg) of LATICRETE Thin-Set Mortar. Place LATICRETE 333 Super Flexible Additive in a clean plastic pail. Do not dilute. Add LATICRETE Thin-Set Mortar to LATICRETE 333 Super Flexible Additive and mix to a smooth, trowelable consistency. Allow mortar to slake for 5–10 minutes. Adjust consistency if necessary. Remix and apply with the proper sized notched trowel.

### Application

#### Thin-Set Mortar

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. Back butter large tiles >8" x 8" (>200 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 LATICRETE 1500 Sanded Grout or LATICRETE 1600 Unsanded Grout mixed with LATICRETE 1776 Grout Enhancer. For maximum stain resistance use LATICRETE SpectraLOCK®† PRO Grout.

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

**Cold Weather Note:** The setting of portland cement mortars are retarded by low temperatures. Protect finished work for an extended period when installing in cold weather. For faster setting mortar use LATICRETE® 101 Rapid Latex Admix. Do not set tile when surface temperature is below freezing or when substrate is frozen.

**Hot Weather Note:** The evaporation of moisture in Portland cement mortars is accelerated by hot, dry conditions. Apply to dampened surfaces and protect freshly spread mortar and finished work when installing in hot temperatures.

#### Cleaning Mortar

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 Distributor information, visit LATICRETE at [www.laticrete.com](http://www.laticrete.com).

### Cost

Contact a LATICRETE Distributor in your area.

## 7. WARRANTY

See 10. FILING SYSTEM

DS 230.13: LATICRETE Product Warranty

A component of:

DS 230.12: LATICRETE 10 Year System Warranty Guarantee

DS 230.14: LATICRETE 15 Year Residential Warranty

DS 700.12: LATICRETE Lifetime Residential 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 (Hours 8:00 AM to 5:30 PM EST):

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

## 10. FILING SYSTEM

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

- DS 230.13: LATICRETE Product Warranty
- DS 230.12: LATICRETE 10 Year System Warranty
- DS 230.14: LATICRETE 15 Year Residential Warranty
- DS 700.12: LATICRETE Lifetime Residential Warranty
- DS 236.0: LATICRETE 9235 Waterproofing Membrane
- DS 259.0: LATICRETE 272 Mortar
- DS 633.0: LATAPOXY 300 Adhesive
- DS 264.0: LATICRETE 101 Rapid Latex Admix
- DS 256.0: LATICRETE 1500 Sanded Grout
- DS 258.0: LATICRETE 1600 Unsanded Grout
- DS 317.0: LATICRETE 317
- DS 265.0: LATICRETE 1776 Grout Enhancer
- DS 685.0: LATICRETE SpectraLOCK® PRO Grout  
United States Invention Patent No.: 6881768 (and other Patents)
- TDS 152: Bonding Ceramic Tile, Stone or Brick Over Wood Floors
- TDS 135: Ceramic and Stone Tile Over Existing Flooring

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