



# 255 MULTIMAX™<sup>Λ</sup>

DS-255.0-0817

**Globally Proven  
Construction Solutions**



## 1. PRODUCT NAME

255 MULTIMAX™<sup>Λ</sup>

## 2. MANUFACTURER

LATICRETE International, Inc.

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## 3. PRODUCT DESCRIPTION

255 MULTIMAX™<sup>Λ</sup> is a patented, lightweight versatile polymer modified thin-set that provides maximum non-sag performance on walls, maximum buildup of up to 3/4" (19 mm) without shrinkage for floors and maximum coverage due to its lightweight creamy smooth consistency. In addition, 255 MULTIMAX<sup>Λ</sup> is reinforced with Kevlar® to provide maximum strength and durability. GreenGuard certified and now contains >10% post-consumer recycled content.

### Uses

- For wall installations of interior and exterior ceramic tile, porcelain tile and stone.
- Can be used as a large and heavy mortar for flooring installations.
- Ideal for showers, bathrooms and areas where mastic is used.

### Advantages

- Revolutionary patented formula combines excellent workability with optimum large and heavy tile performance.
- Reinforced with Kevlar for maximum strength and performance.
- Equipped with anti-microbial technology.
- Incredible non-sag performance, even with heavy tile.
- High coverage—15% more than conventional thin-sets.
- Lightweight mortar—very smooth and easy to trowel.
- Excellent large and heavy tile performance, 3/4" (19 mm) thick without shrinkage.

- "Extra Heavy Service" rating per TCNA performance levels (RE: ASTM C627 Robinson Floor Test).

### Suitable Substrates

- Cement Plaster/Render
- Ceramic Tile
- Gypsum Wallboard\*
- Cement backer board\*\*
- Masonry and brick
- HYDRO BAN® Board\*\*\*

\* Interior use only.

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

\*\*\* Consult product datasheet (DS-040.0) for specific installation recommendations

### Packaging

40 lb (18 kg) bag

### Colors

Grey and White

### Approximate Coverage

40 lb (18 kg) bag

### Trowel Size

Wall Applications—5.9 qts (5.6 L) of Water	ft <sup>2</sup>	m <sup>2</sup>
1/4" x 1/4" (6 mm x 6 mm) notched trowel	85-95	7.9 - 8.8
1/4" x 3/8" (6 mm x 9 mm) notched trowel	55-65	5.1 - 6.0
Large and Heavy Tile Applications—6.25 qts (5.9 L) of Water		
1/2" x 1/2" (12 mm x 12 mm) notched trowel	42-50	3.9 - 4.6
Thin Bed Applications—6.7 qts (6.4 L) of Water		
1/4" x 1/4" (6 mm x 6 mm) notched trowel	80-98	7.4-9.1
1/4" x 3/8" (6 mm x 9 mm) notched trowel	54-66	5.0-6.1

### 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 particle board, luan, Masonite® or hardwood floors.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.

- Not for use over VAT, VCT cutback, vinyl and plastic laminates.
- 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.

*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.

- Some marbles and other natural stone 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 skin irritation. Causes serious eye damage. May cause allergic skin reaction.. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- DO NOT take internally. Silica sand may cause cancer, respiratory irritation or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- For white and light-colored stones, use 255 MULTIMAX™† (white).
- 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 A118.11

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

Mixed with 5.9 qts (5.6 ℓ)

Test	Test Method	Results
Shear Bond, Porcelain Tile, 28 day	ANSI A118.4 7.2.5	400-420 psi (2.8 – 2.9 MPa)
7 day Cure, Water Soak Test, Porcelain Tile	ANSI A118.4 7.2.5	200 - 250 (1.4 – 1.7 MPa)
Shear Bond, Quarry Tile/Plywood, 28 day	ANSI A118.11 4.1.1.2	170 - 190 psi (1.2–1.3 MPa)
Sag on Wall	ANSI A118.4.6.0	0 mm

### Working Properties

Pot Life	4 hours
Time To Traffic	24 hours
Wet Density	10.8 lbs per gallon (1.3 gm/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 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.

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 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" (3mm) 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

### For Walls and Large and Heavy Tile Applications

Place 5.9 qts (5.6 ℓ) of clean water in a pail and slowly add the entire bag of 255 MULTIMAX™†. 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. Job site conditions might vary. Add slightly more water if necessary for proper consistency.

### For Thin Bed Applications

Place 6.7 qts (6.4 ℓ) of clean water in a pail and slowly add the entire bag of 255 MULTIMAX†. 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.

## 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. 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.*

### 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 PERMACOLOR® Select, PERMACOLOR®<sup>^</sup> Grout, SPECTRALOCK® PRO Premium Grout†, SPECTRALOCK PRO Grout†, 1500 Sanded Grout or 1600 Unsanded Grout gauged with 1776 Grout Enhancer or with water.

## Cleaning

Clean tools with water.

## 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 (United States and Canada)

A component of:

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 (United States and Canada)

DS 230.99: LATICRETE Lifetime Tile & Stone System Warranty (United States and Canada)

## 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. 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 (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 (United States and Canada)

DS 230.99: LATICRETE Lifetime Tile & Stone System Warranty (United States and Canada)

DS 236.0: 9235 Waterproofing Membrane

DS 250.0: PERMACOLOR<sup>^</sup> Grout

DS 256.0: 1500 Sanded Grout

DS 258.0: 1600 Unsanded Grout

DS 265.0: 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 152: "Bonding Ceramic Tile, Stone or Brick Over Wood Floors"

<sup>^</sup> United States Invention Patent No.: 6784229 (and other Patents)

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