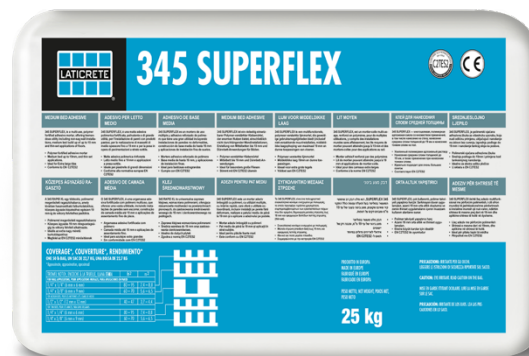




# 345 SUPER FLEX

345 SUPER FLEX is a multi-use, polymer fortified adhesive mortar. It offers tremendous utility including non-sag wall installations, large heavy tile mortar build-up of up to 19 mm and thin-set applications.

**Globally Proven  
Construction Solutions**



## FEATURES/BENEFITS

- Incredible non-sag performance, including large and heavy tile
- Excellent large heavy tile mortar performance, 19 mm thick without shrinkage
- Smooth and Creamy consistency
- "Extra Heavy" rating per ASTM C627
- Exceeds ANSI A118.15, A118.4, and 118.11 Shear Bond
- Strength Requirements
- Exceeds ISO 12004 - C2TES2 classification
- Bonds to many suitable substrates

## USES

- Interior and exterior
- For floor and wall installations of ceramic tile, porcelain tile and stone
- Ideal for most thin-set applications

## STANDARDS/CERTIFICATIONS



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.



This product has been certified for Low Chemical Emissions (UL COM/GG UL2818) under the UL GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment.

## MANUFACTURER

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### Suitable Substrates

- Exterior Glue Plywood\*
- Concrete
- Concrete Block
- Ceramic Tile and Stone
- Gypsum Wallboard\*
- Cement Backer Board\*\*
- Brick and Concrete Masonry
- STRATA\_MAT™
- 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

25 kg bag

### Approximate Coverage with 25 kg bag

Trowel Size	ft <sup>2</sup>	m <sup>2</sup>
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

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, 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.
- Not for use over VAT, VCT, 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.

### 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. May irritate eyes and skin. 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 or serious lung problems. Avoid breathing dust. Wear a respirator in dusty areas.
- For white and light-colored stones, use 345 SUPER FLEX (white).
- Keep out of reach of children.

## TECHNICAL SPECIFICATIONS

### Physical Properties

ANSI A118.15

Test	ANSI A118.15 Specification	Results
Vit-Vit Shear Strength: 24 hrs	100 PSI (0.6 MPa)	212 PSI (1.4 MPa)
Vit-Vit Shear Strength: 7 days	300 PSI (2.0 MPa)	478 PSI (3.3 MPa)
Vit-Vit Shear Strength: 7d Water Immersion	200 PSI (1.3 MPa)	250 PSI (1.7 MPa)
Vit-Vit Shear Strength: 28 days	400 PSI (2.7 MPa)	500 PSI (3.4 MPa)
Quarry-Quarry Shear Strength: 28 days	150 PSI (1.0 MPa)	310 PSI (2.1 MPa)
Glazed Wall Tile Shear Strength: 7 days	450 PSI (3.1 MPa)	476 PSI (3.2 MPa)
Glazed Wall Tile Shear Strength: 7 days Water Immersion	250 PSI (1.7 MPa)	382 PSI (2.6 MPa)
Sag	<0.50 mm	0.35mm
Open Time: 20 minutes at 28 days	>0.50 MPa (>72 PSI)	0.92 MPa (133 PSI)

ANSI A118.4 mixed with 5 qts of water [4.7L]

Test	Test Method	Results
Shear Bond, Porcelain Tile, 28 day	ANSI A118.4 5.2.4	400–425 psi (2.7–2.9 MPa)
Shear Bond, Quarry Tile/Plywood, 28 day	ANSI A118.11 4.1.1.2	160–180 psi (1.0–1.1 MPa)
Sag on Wall	EN 1308	0.25 mm

### Working Properties

Pot Life	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.

## 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 thin 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—50 lb (22.7 kg) bag

For Walls and Large heavy tile mortar Applications Place 4.5 – 4.75 qts (4.3 – 4.5 L) of clean water in a pail and slowly add the entire bag of 345 SUPER FLEX. 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 qts (4.7 L) of clean water in a pail and slowly add the entire bag of 345 SUPER FLEX. 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 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 Heavy Tile Mortar

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.

## AVAILABILITY AND COST

### Availability

LATICRETE® AND LATAPOXY® materials are available worldwide. For distributor information, please contact LATICRETE® EUROPE S.r.l. Telephone +39 059 557680.

For on-line distributor information, visit [www.laticrete.eu](http://www.laticrete.eu)

### Cost

Contact a LATICRETE® and LATAPOXY® closer distributor to obtain complete information and cost.

The supplier warrants that the product will not deteriorate under normal conditions and use. The warranty validity of one (1) year. Contact Technical Support for further information.

## MAINTENANCE

LATICRETE® and LATAPOXY® are products of high quality designed to achieve lasting installations and avoid maintenance, however performance and durability may depend on properly maintaining products, depending of the cleaning products used.

## TECHNICAL SERVICE

### Technical assistance

For information contact: +39 059 557680

[info@laticreteurope.com](mailto:info@laticreteurope.com)

### Technical and safety literature

To obtain technical and safety literature, please visit our website at [www.laticrete.eu](http://www.laticrete.eu)

### Warning

The information and the instructions in the data sheet, although based on knowledge gained through years of applications, are indicative. LATICRETE® unable to directly control the installation conditions and modalities of application of products, do not assume any liability arising from their implementation. Those who want to use the LATICRETE® products must conduct adequate tests to determine the site specifications. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation method and site conditions.

## WARRANTY