



211 Powder

® DS-239.0-1216

**Globally Proven
Construction Solutions**



1. PRODUCT NAME

211 Powder

2. MANUFACTURER

LATICRETE International, Inc.
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3. PRODUCT DESCRIPTION

211 Powder is a factory prepared blend of carefully selected raw materials, portland cement and graded aggregates. Designed for use with 4237 Latex Additive to produce a high strength adhesive for ceramic tile and stone that meets and exceeds the requirements of national and international standards. 254 Platinum is a approved substitute for 211 Powder and 4237 Latex Additive (see Data Sheet 677.0 for details).

Uses

For the installation of ceramic tile and stone over cement and masonry type surfaces.

Application

- Applications include: Interior and exterior, wet and dry areas, walls, floors and ceilings. New and remodel construction, residential or commercial applications.

Advantages

- Premixed—no jobsite blending of powders required
- Safe—non-flammable; Safe to store and mix
- Economical—saves time and money
- Easy to Use—no special tools required.
- High Strength Formula—meets and exceeds National and International Standards
- Versatile—wet and dry areas, walls, floors and ceilings
- Excellent for use in swimming pools, fountains and water features

Suitable Substrates

- Concrete
- Ceramic tile & stone
- Concrete masonry
- Brick masonry
- Gypsum wallboard (interior only)
- Cement mortar beds
- Cement backer board*
- Cement plaster
- Cement terrazzo

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

Packaging

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

Colors: White & Grey

Approximate Coverage

80–95 ft² (7.4–8.8 m²) per 50 lb. (22.7 kg) 211 using a 1/4" x 1/4" (6 mm x 6 mm) square notch trowel.

60–70 ft² (5.6–6.5 m²) per 50 lb. (22.7 kg) bag of 211 using a 1/4" x 3/8" (6 mm x 8 mm) square notch 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

- Use LATAPOXY® 300 Adhesive for installing green marble, water sensitive stone and agglomerate and resin backed tile and stone.
- For veneer installations using this product, consult local building code requirements regarding limitations and installation system specifications.
- Use a white thin set mortar when installing white or light-colored stone.
- 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 Waterproofing Membrane (see Section 10 FILING SYSTEMS).

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 MSDS for more safety information.

- 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.
- Wait 14 days after the final grouting period before filing water features with water at 70°F (21°C).
- Do not take internally. Silica sand may cause cancer or serious lung problems. Avoid breathing 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/CG UL2818) under the UL GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment.



Applicable Standards

(when mixed with 4237 Latex Additive)

- ANSI A118.4
- BS5980: 1980 (Type 3, Class AA)

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.

Performance Properties

211 Powder mixed with 4237 Latex Additive

Test/Test Method	Results
Shear Bond, Porcelain Tile, 28 day cure ANSI A118.4-5.2.4	500 psi (3.5 MPa)
Shear Bond, Porcelain Tile, Water Immersion ANSI A118.4-5.2.3	340 psi (2.3 MPa)
Water Absorption ANSI A118.6-4.4	4% max.

Compressive Strength ANSI A118.4-6.1	5000 psi (34.5 MPa)
TCA Service Rating ASTM C-627	Extra Heavy
Tensile Bond BS 5980:1980 Class AA; 14 days	1575 N (355 lbs)
Shear Adhesion BS 5980:1980 Class AA; 14 days	22.8 kN (5126 lbs)
Coefficient of Linear Thermal Expansion ASTM C-531	65 x 10 ⁻⁷ / (°F) 117 x 10 ⁻⁷ / (°C)

Working Properties

211 Powder mixed with 4237 Latex Additive (70°F [21°C])

Open Time	50 minutes
Pot Life	5 hours
Time to Heavy Traffic	24 hours
Wet Density	102 lbs/ft ³ (1637 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.

5. INSTALLATION

Surface Preparation

All surfaces should be between 40°F (4°C) and 90°F (32°C) and structurally sound, clean and free from all dirt, oil, grease, paint, laitance, 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.

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.

Mixing

Stir 211 Powder thoroughly before use. Use approximately 1.5 gallons (6 l) of 4237 Latex Additive to 50 lbs (22.7 kg) of 211 Powder and place 4237 Latex Additive in a clean plastic pail. Do not dilute. Add 211 Powder to 4237 Latex Additive and mix to a smooth, trowelable consistency. Allow mortar to slake 5–10 minutes. Adjust consistency if necessary. Remix and apply with the proper sized notched trowel.

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. It is essential that enough mortar is used to completely cover the back of the tile with a minimum 3/32" (2 mm) to 1/8" (3 mm) uniform thickness. 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 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.

Grouting

Grout installation can occur after a minimum of 24 hours curing time at 70°F (21°C). Grout with PERMACOLOR® Grout[^] or, 1500 Sanded Grout or 1600 Unsanded Grout mixed with 1776 Grout Enhancer. For maximum stain resistance use SPECTRALOCK® PRO Grout[†]

Cold Weather Note: The setting of portland cement mortars and grouts are retarded by low temperatures. Protect finished work for an extended period when installing in cold weather. For faster setting mortar use 254 Platinum Rapid. 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 temperatures over 95°F (35°C).

Cleaning

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.

Cost

Contact a LATICRETE Distributor in your area.

7. WARRANTY

See 10. FILING SYSTEM:

DS 230.13: LATICRETE 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. 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.

10. FILING SYSTEM

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

DS 230.13:	LATICRETE Product Warranty (United States and Canada)
DS 230.1:	4237 Latex Additive
DS 250.0:	PERMACOLOR® Grout [^]
DS 236.0:	9235 Waterproofing Membrane
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 677.0:	254 Platinum
DS 685.0:	SPECTRALOCK® PRO Grout [†]
DS 729.0:	254R Platinum Rapid

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

[^] United States Invention Patent No.: 6784229 (and other Patents)