

Multi-Purpose Flex Polymer-Modified Thin-Set Mortar

1 Product Name

Multi-Purpose Flex Polymer-Modified Thin-Set Mortar

2 Manufacturer

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3 Product Description

Multi-Purpose Flex has superior bond strength for setting porcelain, glass and other non-porous tile to concrete surfaces, backerboards and self-leveling underlayment. Sets large porcelain tile over 12" x 12" (30 x 30 cm). Also great for radiant heating system installations. Exceeds ANSI A118.4 and A118.11 without the need for additives.

Uses

Bonds vitreous, semi-vitreous or absorptive tile including ceramic, mosaic, quarry, porcelain and glass tile; precast terrazzo; brick; mini-brick; gauged natural stone tile. For interior or exterior floors, walls or countertops. Use white mortar when installing light colored or translucent marble, glass tile or when using light colored grout. When setting moisture sensitive stone, tile or agglomerates, use EBM-Lite™ Epoxy Bonding Mortar—100% Solids. Do not use to install resin-backed stone. When setting glass tile over 6" x 6" (15 x 15 cm) or dimensional stone larger than 12" x 12" (30 x 30 cm), contact Technical Services for recommendations.

Suitable Substrates

Apply over concrete, mortar beds, masonry, cement backerboards, Portland cement, plaster, gypsum wallboard (dry areas), existing ceramic tile, exterior grade plywood (interior dry areas), sheet vinyl flooring, VCT, plastic laminates or cutback adhesive.

Limitations to the Product

Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushion or sponge-back vinyl flooring, metal, fiberglass, plastic or OSB panels.

4 Technical Data

Technical Chart

Technical Data

	Typical Value
Exceeds ANSI A118.4 and A118.11 specifications	
Open Time @ 70° F (21° C)	30 minutes
Adjustability @ 70° F (21° C)	30 - 35 minutes
Shear Bond Strength	
Non-Vitreous Tile: 28 day dry cure	
Bisque Tile	550 psi (38.7 kg/cm ²)
Porcelain Tile	450 psi (31.6 kg/cm ²)
Quarry Tile to Plywood	190 psi (13.4 kg/cm ²)



5 Instructions

General Surface Prep

General Surface Preparation Surfaces must be structurally sound, clean, dry and free from grease, oil, dirt, curing compounds, sealers, adhesives or any other contaminant that would prevent a good bond. Glossy or painted surfaces must be sanded, stripped and cleaned of waxes, dirt or any contaminants. Concrete or plaster must be fully cured and accept water penetration. Concrete must be free of efflorescence and not subject to hydrostatic pressure. Concrete slabs should have a broomed or brushed finish to enhance the bond. Do not sand flooring materials containing asbestos. Ambient temperature, surfaces and materials should be maintained at a temperature above 50° F (10° C) or below 100° F (38° C) for 72 hours.

Bonding to Plywood Surfaces

Plywood floors, including those under resilient flooring, must be built to industry standards. Deflection should not exceed L/360. Smooth concrete surfaces, existing glazed tile, terrazzo, or polished stone should be roughened or scarified. Sheet vinyl must be well bonded and stripped of old finish. Roughen the surface by sanding or scarifying, rinse and allow to dry.

Bonding to Cutback Adhesive

Cutback Adhesive over Concrete

Adhesive layers must be removed as they reduce mortar bond strength to cement surfaces. Use extreme caution as adhesives may contain asbestos fibers. Do not sand or grind adhesive residue, as harmful dust may result. Never use adhesive removers or solvents, as they soften the adhesive and may cause it to penetrate into the concrete. Adhesive residue must be wet-scraped to the finished surface of the concrete, leaving only the transparent staining from the glue. Do a test bond area first, to determine desirable results. Refer to the RFCI Pamphlet, "Recommended Work Practices for Removal of Resilient Floor Coverings" for further information.

Movement Joint Placement

Expansion Joints Expansion joints, control joints and cold joints should never be bridged with setting material. They must be brought through the tile and filled with an appropriate elastomeric sealant.



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Mixing Ratios

Thoroughly mix 6 quarts (5.68 L) clean, cool water and 50 lbs. (22.68 kg) of powder together to a smooth, paste consistency. Mix by hand or use a low speed (150 – 200 RPM) 1/2" (13 mm) drill. Let slake or stand 5 – 10 minutes, stir again and use. Stir occasionally to keep fluffy, but do not add more water. When properly mixed, troweled ridges will stand with no slump.

Application of Product

INSTALLATION TO CONFORM TO ANSI A108.5. Use proper sized notch trowel to ensure 100% coverage under tiles. Use a 1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) square-notch trowel when setting tile larger than 12" x 12" (30 x 30 cm). Using flat side of trowel, apply skim coat of mortar to the surface. Apply additional mortar with notched side of trowel held at a 45° angle to the surface, combing in one direction. Press tile firmly into place in a perpendicular motion across ridges, moving back and forth. Perpendicular pressing flattens ridges and closes valleys allowing maximum coverage. With some tile, back buttering is advisable. Adjust tile promptly and beat in with block and rubber mallet. Mortar can be applied up to 1/4" (6 mm) thick after beat in. For thicker applications, use a medium bed mortar. Periodically pull up a tile and check the back to ensure complete coverage with the adhesive. Do not spread more material than can be tiled in 15 minutes or while material has wet tack (sticky to the touch). If material has skinned over (not sticky), recomb with notch trowel. If too dry, remove and replace with fresh material. Material in bucket will remain workable approximately 4 hours.

Curing of Product

Allow to dry for at least 24 hours before grouting or light traffic depending upon temperature and humidity. Master Color® Grout is recommended.

Cleaning of equipment

Clean with water before material dries.

Health Precautions

Contains Portland cement. Wear rubber gloves and eye protection. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes. Consult a physician immediately. **WARNING! Do Not Breathe Dust!** This product contains Free Silica which may cause cancer or delayed lung injury (Silicosis). Wear approved respirator in dusty areas. See Material Safety Data Sheet for detailed information. **KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. STORE IN COOL, DRY AREA.**

6 Availability & Cost

Item Code	Color	Size	Package
125133	Grey	50 pounds (22.68 kg)	Bag
125003	White	50 pounds (22.68 kg)	Bag

7 Product Warranty

Manufacturer warrants that should this product prove to be defective material, it will replace the same or refund the purchase price of the goods. THIS WARRANTY IS IN PLACE OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. WARRANTIES OF MERCHANTABILITY AND OF FITNESS ARE HEREBY DISCLAIMED. The suitability of a product for an intended use shall be solely up to the user. Manufacturer assumes no liability for consequential damages. Its liability shall in no event exceed the purchase price of the materials supplied by it. No person has the authority to change these items and there are no warranties except herein stated.



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8 Coverage

90 - 100 sq. ft. per 50 lbs. (8.4 - 9.3 M² /22.68 kg) applied with a 1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) square-notch trowel. 60 - 70 sq. ft. per 50 lbs. (5.6 - 6.5 M² /22.68 kg) applied with a 1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) square-notch trowel.