SpeedSet™ Fortified Thin-Set Mortar



1. Product Name

SpeedSet™ Fortified Thin-Set Mortar

2. Manufacturer

Custom Building Products
Technical Services
10400 Pioneer Boulevard, Unit 3
Santa Fe Springs, CA 90670
Customer Support: 800-272-8786
Technical Services: 800-282-8786
Fax: 800- 200-7765
Email: contactus@cbpmail.net
custombuildingproducts.com

3. Product Description

Fast setting, polymer modified mortar ideal for fast track or cold weather jobs. Grout in as little as 3 hours. Light traffic in 4 hours. Can be used for small repairs.

Key Features

- For time-critical installations
- Grout in 3 hours - traffic in 4 hours
- Great for tile repairs and smaller jobs
- Exceeds ANSI A118.4F and A118.11

Suitable Substrates

- Interior and exterior floors, countertops, walls
- Concrete, mortar beds, masonry, Portland cement plaster
- Exterior Grade Plywood for interior residential and light commercial dry areas
- Gypsum wallboard (dry areas)
- Water-resistant wallboard
- Existing ceramic tile
- Well-bonded, fully-glued sheet vinyl flooring
- Plastic laminates
- Cutback adhesive

Composition of Product

SpeedSet™ Fortified Thin-Set Mortar is a dry, proprietary blend of Portland cement, copolymers, inorganic aggregates and chemicals.

Benefits of Product in the Installation

- Quick setting mortar for time-critical installations
- Allows for grouting in 3 hours and traffic in 4 hours
- Can be used for repair and small jobs
- Exceeds ANSI A118.4 and A118.11 standards without the need for additives

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.
- Not recommended for interior and exterior pools and water features. CUSTOM recommends MegaLite® Crack Prevention Mortar, MegaFlex® Crack Prevention Mortar and ProLite® Large Tile and Stone Mortar for the installation of ceramic and porcelain tile in submerged applications. For additional information, contact Custom Technical Services.
- When setting moisture sensitive natural stone, cement or agglomerate tile use EBM-Lite™ Epoxy Bonding Mortar 100% Solids or CEG-Lite™ 100% Solids Commercial Epoxy Grout.
- Do not use to install resin-backed stone use EBM-Lite™ Epoxy Bonding Mortar 100% Solids, CEG-Lite™ 100% Solids Commercial Epoxy Grout or contact Custom's® Technical Services for recommendations.
- When setting glass tile larger than 6" x 6" (15 x 15 cm), contact Custom's® Technical Services for recommendations.
- When setting dimensional stone larger than 12" x 12" (30 x 30 cm), contact Custom's® Technical Services for recommendations regarding subfloor deflection requirements.

Packaging

- 25 lb (11.34 kg) bag
- Gray or White

4. Technical Data

Applicable Standards

American National Standards Institute (ANSI) - ANSI A108.5, A118.4 and A118.11 of the American National Standards for the Installation of Ceramic Tile

ASTM International (ASTM)

- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester

Resilient Floor Covering Institute - (RFCI) Recommended Work Practices for Removal of Resilient Floor Coverings
Tile Council of North America (TCNA) - TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171

Technical Chart

Property	Test Method	Requirement	Typical Results
Pot Life			30 Minutes
Open Time	A118.4 Section 5.3	> 20 Minutes	Pass
4 Week Shear Bond Strength			
Glazed Wall Tile	A118.4 Section 5.1.5	> 300 psi	425 - 500 psi (29.9 - 35.2 kg/cm²)
Porcelain Tile	A118.4 Section 5.2.4	> 200 psi	300 - 400 psi (21.1 - 28.1 kg/cm²)
Quarry Tile to Plywood	A118.11 Section 4.1.2	> 150 psi	150 - 250 psi (10.5 - 17.6 kg/cm²)

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Environmental Consideration

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product can contribute towards LEED® v3 certification:

- Up to 2 points towards MR Credit 5, Regional Materials
- Up to 1 point towards IEQ Credit 4.1, Low-Emitting Materials - Adhesives & Sealants

Bonding To Concrete Surfaces

Concrete or plaster must be fully cured and must accept water penetration. Test by sprinkling water on various areas of the substrate. If water penetrates, then a good bond can be achieved; if water beads or surface contaminants are present, loss of adhesion may occur. Contaminants should be mechanically removed before installation. 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. Smooth concrete slabs must be mechanically abraded to ensure a good bond.

Bonding to Gypsum Surfaces

Lightweight or gypsum-based underlayments must first be treated with RedGard® Waterproofing and Crack Prevention Membrane and must obtain a minimum 2000 psi (13.8 MPa) compressive strength at the recommended cure time. The underlayment must be sufficiently dry and properly cured to the manufacturer's specifications for permanent, non-moisture permeable coverings. Surfaces to be tiled must be structurally sound and subject to deflection not to exceed the current ANSI standards. All lightweight concrete and gypsum-based underlayment surfaces to receive RedGard® must be primed with properly applied sealer or a primer coat of RedGard®, consisting of 1 part RedGard® diluted with 4 parts clean, cool water. Mix in a clean bucket at low speed to obtain a lump-free solution. The primer can be brushed, rolled or sprayed to achieve an even coat. Apply the primer coat to the floor at a rate of 300 ft/gal (7.5 M/L). Drying time depends on site conditions, but is normally less than 1 hour. Extremely porous surfaces may require 2 coats. At this point, RedGard® can be applied to the primed lightweight or gypsum-based surface. Refer to the individual product data sheet or packaging directions for application instructions. Expansion joints must be installed in accordance with local building codes and ANSI/TCNA guidelines. Refer to TCNA EJ171.

Bonding to Plywood and OSB Surfaces

Plywood floors, including those under resilient flooring, must be structurally sound and must meet all ANSI and deflection requirements. For questions about proper subfloor installation, contact Custom® Building Products.

Bonding to Cutback Adhesive

Thick accumulations, powdery, brittle or weak 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 weaken or soften the adhesive and may cause it to penetrate into the concrete. The remaining residue should be no thicker than a coat of paint and should be almost transparent. Always install an adequate number of properly located test areas.

Movement Joint Placement

Construction, expansion and isolation joints as described in ANSI A108.01, should never be bridged with setting material. They must be brought through the tile work and filled with an appropriate elastomeric sealant. Contact Custom® Building Products for the proper treatment of control or saw cut joints. Refer to TCNA EJ171.

Mixing Ratios

Mix 3 qts (2.83 L) clean water per 25 lb (11.34 kg) bag of mortar.

Mixing Procedures

Mix material by hand or use a low 150-200 RPM speed 1/2" (13 mm) drill to achieve a smooth, paste-like consistency. Let the mixture slake or stand 3 minutes; stir again and use. Stir occasionally, but do not add more water. When properly mixed, troweled ridges will stand without slump.

Application of Product

Installation must conform to ANSI A108.5. Use a properly-sized notch trowel to ensure proper coverage under tiles. Using the flat side of the trowel, apply a skim coat of mortar to the surface. With the notch side of the trowel held at a 45° angle, apply additional mortar to the surface, combing in one direction. Press the tile firmly into place in a perpendicular motion across ridges, moving back and forth. The perpendicular motion flattens ridges and closes valleys, allowing maximum coverage. With some tile, back-buttering is advisable. Adjust the tile promptly and beat it in with a beating block and rubber mallet. Periodically pull up a tile and check the back to ensure proper adhesive coverage. If the material has skinned over (not sticky to the touch), recomb with the notch trowel; if too dry, remove and replace the dry material with fresh material. Thin-Set Mortar should not be used to fill low spots in the flooring. Mortar can be applied up to 1/4" (6 mm) thick after beat in. For large format tile and uneven flooring, use mortars designed for Medium Bed applications.

Curing of Product

Curing time is affected by ambient and surface temperatures and humidity. Use the following as a guideline. Allow 3 hours before grouting, 4 hours before light traffic, and 3 days before heavy or vehicular traffic. Before exposure to heavy or vehicular traffic, assure assembly is rated €œHeavy or Extra Heavy€ per TCNA Service Requirements. As necessary, use plywood or other load distributing protection when moving heavy equipment across tiled assembly. Submerged installations must cure for 14 days before filling with water.

Cleaning of Equipment

Clean with water before the material dries.

Health Precautions

This product contains Portland cement and free silica. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Do not breathe dust; wear a NIOSH approved respirator.

Conformance to Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

5. Size & Availability

Location	Item Code	Size	Color	Package
USA	SDS25	25 lb (11.34 kg)	Gray	Bag
USA	SDSW25	25 lb (11.34 kg)	White	Bag
Canada	CSDS25	25 lb (11.34 kg)	Gray	Bag

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6. Product Warranty

This product is eligible for Custom® Building Products 10 Year Installation Systems Warranty. Custom® Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. Custom's® sole liability under this warranty shall be limited to the replacement of the product. Some states, countries or territories do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty will not extend to any product which has been modified in any way or which has not been used in accordance with Custom's® printed instructions. Custom® makes no other warranties either expressed or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state or from one country/territory to another. For details and complete warranty information, visit /reference-library/warranties.aspx.

7. Product Maintenance

Properly installed product requires no special maintenance.

8. Technical Services Information

For technical assistance, contact Custom® Building Products.

9. Filing System

Additional product information is available from the manufacturer upon request.

Related Products

Polyblend®Plus Sanded Grout

Coverage Chart

SQUARE FOOT COVERAGE PER 25 LB BAG (SQUARE METER PER 11.34 KG)

Chart for estimating purposes. Coverage may vary based on installation practices and jobsite conditions. For more trowel sizes, please use the material calculator at CustomBuildingProducts.com or contact CUSTOM Technical Services at (800)282-8786.

Trowel Size	Min Coverage	Max Coverage
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) Square-Notch	45 sq. ft. (4.2 M²)	50 sq. ft. (4.6 M²)
1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) Square-Notch	20 sq. ft. (1.9 M²)	25 sq. ft. (2.3 M²)

Mortar coverage between the substrate and tile underside is required to be ≥80% for dry areas and ≥95% for wet areas and exteriors with all tile edges properly supported with mortar and in a minimum of 3/32” (2.38 mm) and a maximum of ¼” (6mm) for mortars without an ANSI “H” rating. Note: Larger tiles, tiles with deep underside patterns and ungauged natural stone tiles may require larger notch sizes and may need to be flat back-troweled (formerly back buttered) to achieve proper coverage and mortar support. CUSTOM recommends testing to confirm adequate bonding mortar coverage. CUSTOM recommends testing to confirm adequate bonding mortar coverage.

When back troweling, consider the tile’s underside pattern and depth to estimate thickness and usage to add to your estimate. For achieving proper mortar coverage see the following video: Trowel & Error. (Also available in Spanish and Russian.) For achieving proper mortar coverage see the following video: Trowel & Error. (Also available in Spanish and Russian.) For information regarding back troweling, refer to The National Tile Contractors Association / Reference Manual & Flat Back & Notched Back - Troweling (TileTVS3 22 08)