MultiSet Economical Thin-Set Mortar



1. Product Name

MultiSet Economical Thin-Set Mortar

2. Product Description

Economical polymer modified mortar for use over concrete, cement backerboard and existing ceramic tile. For interior floors and walls.

Key Features

- For basic floor and wall tile installations
- Meets ANSI A118.4

Suitable Substrates

- Concrete, mortar beds, masonry, Portland cement plaster
- Liquid applied waterproofing membranes such as RedGard® and Custom® 9240
- Crack prevention sheet membranes such as Crack Buster® Pro
- Uncoupling membranes such as RedGard® Uncoupling Mat
- Surfaces treated with MBP Multi-Surface Bonding Primer
- Gypsum wallboard (interior dry areas)
- Existing ceramic tile (scarified)
- Cutback adhesive (see preparation instructions)

Limitations to the Product

- Do not bond directly to exterior glued plywood (EGP). Consult Technical Services for recommendations.
- 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™ 100% Solids Epoxy Bonding Mortar, CEG-IG 100% Solids Industrial Grade Epoxy Grout or CEG-Lite™ 100% Solids Commercial Epoxy Grout.
- Do not use to install resin-backed stone; use EBM-Lite™ 100% Solids Epoxy Bonding Mortar, CEG-IG 100% Solids Industrial Grade Epoxy Grout, CEG-Lite™ 100% Solids Commercial Epoxy Grout or contact Custom's® Technical Services for recommendations.
- For clear or translucent glass, CUSTOM recommends Glass Tile Premium Thin-Set Mortar. 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

- 50 lb (22.68 kg) bags
- Gray or white

3. Technical Data

Applicable Standards

American National Standards Institute (ANSI) - ANSI A108.5 and A118.4 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
ISO 13007-2

Technical Chart

Property	Test Method	Requirement	Typical Results
Pot Life			2 Hours
Open Time	A118.4 Section 5.3	> 20 Minutes	Pass
4 Week Shear Bond Strength			
Mixed with Water			
Glazed Wall Tile	A118.4 Section 5.1.5	> 300 psi	300 - 325 psi (21.2 - 22.8 kg/cm²)
Porcelain Tile	A118.4 Section 5.2.4	> 200 psi	200 - 275 psi (14.1 - 19.3 kg/cm²)

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 2 points towards MR Credit 4, Recycled Content
- Up to 1 point towards IEQ Credit 4.1, Low-Emitting Materials - Adhesives & Sealants

4. Instructions

General Surface Prep

USE CHEMICAL-RESISTANT GLOVES, such as nitrile, when handling product.

Surfaces must be structurally sound. Remove all grease, oil, dirt, curing compounds, sealers, adhesives or any other contaminant that would prevent a good bond. Glossy or painted surfaces must be sanded, or abraded, and stripped of all contaminants. Concrete must be cured 28 days and accept water penetration. Concrete must be

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free of efflorescence and not subject to hydrostatic pressure. Concrete slabs should have a coarse finish to enhance the bond. Plywood flooring including those under resilient flooring must be structurally sound and meet all ANSI and deflection requirements. For questions about proper subfloor installation, call Technical Services. Smooth concrete surfaces, existing glazed tile, terrazzo, or polished stone should be scarified. Expansion joints should never be bridged with setting material. Do not sand flooring materials containing asbestos. Ambient temperature should be maintained above 50° F (10° C) or below 100° F (38° C) for 72 hours to achieve proper bond.

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, surface contaminants are present, and 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 Cutback Adhesive

Adhesive layers must be removed, as they reduce mortar bond strength to cement surfaces. Use extreme caution; 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. To determine desirable results, do a test bond area before starting. Refer to the RFCI Pamphlet, "Recommended Work Practices for Removal of Resilient Floor Coverings", for further information.

Movement Joint Placement

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

Mixing Ratios

Thoroughly mix 6 quarts (5.68 L) clean, cool water and 50 lb. (22.68 kg) bag of powder together to a smooth, paste-like consistency.

Mixing Procedures

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 or admix. When properly mixed, troweled ridges will stand with no slump.

Application of Product

INSTALLATION TO CONFORM TO ANSI A108.5. Use a properly-sized notched trowel to ensure 100% coverage under tiles. 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 a beating block and rubber mallet. Mortar can be applied up to 1/4" (6 mm) thick after beat in. 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 notched trowel. If too dry, remove and replace with fresh material. Material in bucket will remain workable approximately 2 hours.

Curing of Product

Curing time is affected by ambient and surface temperatures and humidity. Use the following as a guideline. Allow 24 hours before grouting and light traffic, and 7-10 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.

Cleaning of Equipment

Clean with water before the material dries.

Storage

Store in a cool dry area.

Health Precautions

Contains Portland cement. 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. This product contains free silica. Do not breathe dust; wear 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

Item Code	Size	Color	Package
MSMG50	50 lb (22.68 kg)	Gray	Bag
MSMW50	50 lb (22.68 kg)	White	Bag

6. Product 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 custombuildingproducts.com.

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.

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Related Products

RedGard® Uncoupling Mat

Private: VersaBond Flex® Professional Thin-Set Mortar –
Request to move from site on 10/27/25 by Don Munro, Diane Stewart

Coverage Chart

SQUARE FOOT COVERAGE PER 50 LB BAG (SQUARE METER PER 22.68 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	85 sq. ft. (7.9 M²)	95 sq. ft. (8.8 M²)
1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) Square-Notch	60 sq. ft. (5.6 M²	67 sq. ft. (6.2 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) or notched-back troweled to achieve proper coverage and mortar support. 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 information 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).