1. Product Name
VersaBond® Fortified Thin-Set Mortar
SpeedSet™ Fortified Thin-Set Mortar
Medium Bed Mortar

2. Manufacturer
Custom Building Products
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3. Product Description

BASIC USE
VersaBond® Fortified Thin-Set Mortar
VersaBond is a professional formula, all-purpose mortar, polymer-modified to provide good bond strength for floor and tile projects. VersaBond cures quickly and adheres to most surfaces, exceeding ANSI A118.4 and A118.11 without the need for additives. It can be installed for vitreous, semivitreous and absorptive tile, including ceramic, mosaic, quarry, cement, porcelain tile, natural stone, precast terrazzo, brick and thin brick applications.

Uses for VersaBond include:
- Interior and exterior floors, countertops, walls
- Concrete, mortar beds, masonry, Portland cement plaster
- EasyBoard®, WonderBoard®, cement backerboards
- 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

Medium Bed Mortar
Medium Bed Mortar is an economical polymer-modified mortar for use with large tile and natural stone. With a nonslumping formula to eliminate lippage, Medium Bed Mortar can be applied to 3/4" (19 mm) thick on horizontal applications. Use it for vitreous, semivitreous and absorptive tile, including ceramic, quarry, pavers, cement and porcelain, gauged or ungauged natural stone and precast terrazzo.

When mixed with water, Medium Bed Mortar can be used for the following:
- Interior and exterior floors and countertops
- Concrete, mortar beds, masonry
- EasyBoard, WonderBoard, cement backerboards
- Existing ceramic tile

Compositions & Materials
VersaBond Fortified Thin-Set Mortar, SpeedSet Fortified Thin-Set Mortar and Medium Bed Mortar products are Portland cement based mortars. VersaBond and SpeedSet include vinyl copolymers.

Size, Colors
VersaBond
- 25 lb (11.34 kg) bags, gray
- 50 lb (22.68 kg) bags, white
- 50 lb (22.68 kg) bags, gray

SpeedSet
- 25 lb (11.34 kg) bags, gray
- 25 lb (11.34 kg) bags, white

Medium Bed Mortar
- 50 lb (22.68 kg) bags, gray
- 50 lb (22.68 kg) bags, white

Benefits
VersaBond Fortified Thin-Set Mortar
- Cost-efficient, all-purpose mortar
- Good bond strength
- Cures quickly in even cold climates
- Exceeds ANSI A118.4 and A118.11 standards without additives
- Protected by MoldGard Technology to resist mold and mildew growth

SpeedSet Fortified Thin-Set Mortar
- Quick setting mortar for time-critical installations
- Allows grouting in 2 hours and traffic in 6 hours
- Can be used for repair and small jobs
- Exceeds ANSI A118.4 and A118.11 standards without additives
- Protected by MoldGard Technology to resist mold and mildew growth

Medium Bed Mortar
- Designed for large dimensional stone and tile to 12” x 12” (30 x 30 cm)
- Minimizes need for tile leveling by eliminating lippage
- Can be applied to 3/4” (19 mm) thick on floors
- Meets ANSI A118.4 without requiring additives
- Protected by MoldGard Technology to resist mold and mildew growth

Accessories
Thin-Set Mortar Admix is an additive available for use with Medium Bed Mortar to improve the bond to plywood and other hard to bond surfaces.

Limitations
- Do not bond directly to hardwood, lauan plywood, particleboard, parquet, cushion or sponge back vinyl flooring, metal, fiberglass, plastic or OSB panels
- When setting moisture sensitive natural stone, cement or agglomerate tile, check with the manufacturer and use OptiCure® Fortified Thin-Set Mortar or 100% Solids Epoxy Mortar
- Do not use to install resin-backed stone; use 100% Solids Epoxy Mortar
- When setting dimensional stone larger than 12” x 12” (30 x 30 cm), contact Custom Building Products for recommendations regarding subfloor deflection requirements
4. Technical Data

APPlicable Standards

Tile Council of North America (TCNA) - TCA Handbook for Ceramic Tile Installation, TCA Method EJ171

Technical Properties
See Table 1.

Environmental Considerations
Custom Building Products is committed to environmental responsibility in both products produced and in manufacturing practices.

Use of VersaBond Fortified Thin-Set Mortar and SpeedSet Fortified Thin-Set Mortar can contribute to LEED® certification.

5. Installation

Preparatory Work

General Surface Preparation
Surfaces must be structurally sound, clean, dry and free from grease, oil, dirt, curing compounds, sealers, adhesives and other contaminants that would prevent a good bond. Glossy or painted surfaces must be sanded, stripped and cleaned of waxes, dirt and other contaminants. Ambient temperature, surfaces and materials should be maintained above 50 degrees F (10 degrees C) and below 100 degrees F (38 degrees C) until adhesive cures. Cementitious Surfaces
Concrete or plaster must be porous, fully cured and must accept water penetration. Test by sprinkling water on various areas of the substrate. If water penetrates, a good bond can be achieved; if water beads, surface contaminants are present and loss of adhesion may occur. Contaminants should be 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.

Lightweight, Gypsum Based Underlayments
Lightweight or gypsum based underlayments must first be treated with RedGard® Waterproofing & Anti-Fracture 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

<table>
<thead>
<tr>
<th>TABLE 1: TECHNICAL PROPERTIES</th>
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<tr>
<td>ANSI A118 Property</td>
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<td>Pot life</td>
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<td>Open time</td>
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<td>Adjustment time</td>
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<td>Shear bond @ 28 days</td>
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<td>Bisque tile</td>
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<td>Porcelain tile</td>
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<td>Quarry tile to plywood</td>
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Resilient flooring or plastic laminates must be well bonded, as well as clean and free of all contaminants. Roughen the surface by sanding or scarifying; rinse and allow to dry. Do not sand flooring that contains asbestos. For existing well-bonded ceramic tile, mechanically abrade the surface. Rinse and allow to dry. An approved respirator should be used when sanding.

Expansion Joints
Construction, expansion and isolation joints, as described in ANSI A108.0.1, 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 proper treatment of control or saw cut joints. Refer to TCNA EJ171.

Cutback Adhesive Over Concrete
Thick accumulations, powdery, brittle or weak adhesive layers must be removed. 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.

Methods
Mixing
VersaBond Fortified Thin-Set Mortar
Mix 6 qt (5.68 L) of water to a 50 lb (22.68 kg) bag of VersaBond.

SpeedSet Fortified Thin-Set Mortar
Mix 4 qt (3.79 L) of water to a 25 lb (11.34 kg) bag of SpeedSet.

Medium Bed Mortar
Mix 5 qt (4.73 L) of water to a 50 lb (22.68 kg) bag of Medium Bed Mortar.

Custom Building Products
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 5 - 10 minutes; stir again and use. Stir occasionally, but do not add more water. When properly mixed, troweled ridges stand without slump.

Application
Installation must conform to ANSI A108.5. Use a properly sized notched trowel to ensure proper coverage under tiles. Using the flat side of the trowel, apply a skim coat of mortar to the surface. Apply additional mortar with the notched side of the trowel held at a 45 degree angle 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 block and rubber mallet. Periodically pull up a tile and check the back to ensure proper adhesive coverage. Do not spread more material than can be tiled within 15 minutes or while material has a wet tack (sticky to the touch). If the material has skinned over (not sticky), recomb with the notched trowel; if too dry, remove and replace the dry material with fresh material. Material in the bucket will remain workable for approximately 4 hours.

Curing
Allow to cure for 24 hours before grouting or light traffic, depending upon temperature and humidity.

Cleaning
Clean with water before material dries.

Coverage
<table>
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<tr>
<th>VersaBond</th>
<th>SpeedSet</th>
<th>Medium Bed Mortar</th>
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<tr>
<td>• 80 - 90 ft² per 50 lb (7.4 - 8.4 m²/22.68 kg) when applied with a 1/4 x 1/4 x 1/4 (6 x 6 x 6 mm) square-notch trowel</td>
<td>• 45 - 50 ft² per 25 lb (4.2 - 4.7 m²/11.34 kg) applied with a 1/4&quot; x 1/4&quot; x 1/4&quot; (6 x 6 x 6 mm) square-notch trowel</td>
<td>• 43 - 48 ft² per 50 lb (4 - 4.5 m²/22.68 kg) applied with a 1/2&quot; x 1/2&quot; x 1/2&quot; (13 x 13 x 13 mm) square-notch trowel</td>
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• 34 - 38 ft² per 50 lb (3.2 - 3.5 m²/22.68 kg) applied with a 3/4" x 9/16" x 3/8" (19 x 14 x 9.5 mm) U-notch trowel

PRECAUTIONS
These products contain Portland cement and/or 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; use with adequate ventilation and wear a NIOSH approved respirator.

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

6. Availability & Cost
Contact the manufacturer or visit the www.custombuildingproducts.com website for information about product cost and availability.

7. Warranty
These products are eligible for Custom Building Products’ 10 year system warranty. For complete warranty information, visit the www.custombuildingproducts.com website.

8. Maintenance
Properly installed product requires no special maintenance.

9. Technical Services
For technical assistance, contact Custom Building Products or visit the website: www.custombuildingproducts.com.

10. Filing Systems
• Additional product information is available from the manufacturer upon request.