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# VERSABOND FLEX™ FORTIFIED THIN-SET MORTAR

- Pro formula, all-purpose mortar
- High flexibility and bond strength
- Excellent for setting porcelain and glass tile
- Exceptional adhesion to plywood subfloors
- Polymer modified – Exceeds ANSI A118.4 and A118.11

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## PRODUCT DESCRIPTION

VersaBond Flex™ Thin-Set Mortar offers high flexibility and bond strength for a wide variety of floor and wall tile installations. It offers exceptional adhesion to plywood subfloors and is an excellent choice for porcelain and glass tile installations. This smooth, creamy formula provides outstanding working characteristics. Exceeds ANSI A118.4 and A118.11 without the need for additives.

## USES — TILE TYPES

- Vitreous, semi-vitreous or absorptive tile:  
ceramic, mosaic, quarry, cement
- Impervious porcelain and glass tile
- Brick and mini-brick
- Precast terrazzo
- Natural stone tile

## AREAS OF USE

- Interior or exterior floors, countertops, walls
- Concrete, mortar beds, masonry, Portland cement plaster
- WonderBoard®, RhinoBoard® cement backerboards
- Exterior grade plywood (interior residential and light commercial dry areas)
- Gypsum wall board (dry areas)
- Water-resistant wallboard
- Existing ceramic tile
- Sheet vinyl flooring, VCT
- Plastic laminates
- Cutback adhesive

## LIMITATIONS

- Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushion or sponge-back vinyl flooring, metal, fiberglass, plastic and OSB panels.
- When setting moisture sensitive stone, tile or agglomerates (check with manufacturer) use OptiCure™ Fortified Thin-Set Mortar or 100% Solids Epoxy Mortar.
- Do not use to install resin-backed stone.
- When setting glass tile over 6" x 6" (15 x 15 cm) contact Technical Support for recommendations.

- When setting dimensional stone larger than 12" x 12" (30 x 30 cm), contact Technical Support for recommendations regarding subfloor deflection requirements.

## SURFACE PREPARATION

### 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. 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.

### Cementitious Surfaces:

Concrete or plaster must be fully cured and 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. The 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 roughened to ensure a good bond.

### Plywood Substrates:

Plywood floors including those under resilient flooring must be built to industry standards. Deflection not to exceed L/360. For questions about proper subfloor installation, call Technical Support.

### WonderBoard® and RhinoBoard® Backerboards:

As a superior alternative to an additional layer of plywood, WonderBoard or RhinoBoard backerboards may be installed over plywood subfloors. Refer to their respective data sheets for installation information.

### Existing Ceramic Tile, Resilient Flooring or Plastic Laminates:

Plywood flooring must be structurally sound and meet all ANSI and deflection requirements. Resilient flooring or plastic laminates must be well bonded, clean and free of all contaminants. Roughen the surface by sanding or scarifying, rinse and allow to dry. Do not sand flooring containing asbestos. For existing well-bonded ceramic tile, mechanically abrade with carborundum stone. Rinse and allow to dry. When sanding we recommend the use of an approved respirator.



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BUILDING PRODUCTS

### Expansion Joints:

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.

### 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. Use the wet-scraping and wet-sweeping method outlined in the Resilient Floor Covering Institute pamphlet "Recommended Work Practices for Removal of Resilient Floor Coverings". 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.

### MIXING

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

**INSTALLATION TO CONFORM TO ANSI A108.5.** Use proper sized notch 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 block and rubber mallet. 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 in excess of 2 hours.

### CURING

Allow to cure for 24 hours before grouting or light traffic, depending upon temperature and humidity. Polyblend® Tile Grout is recommended.

### COVERAGE

90 - 100 sq. ft. per 50 lbs. (8.4 - 9.3 m<sup>2</sup>/22.68 kg) applied with a 1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) square-notch trowel.

### CLEAN-UP

Clean with water before material dries.

### STORAGE

Store in a cool dry area.

### SAFETY

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.

### ORDERING INFORMATION

|        | ITEM CODE | SIZE              | COLOR | PACKAGE |
|--------|-----------|-------------------|-------|---------|
| USA    | VBFG50    | 50 lb. (22.68 kg) | Gray  | Bag     |
| USA    | VBFW50    | 50 lb. (22.68 kg) | White | Bag     |
| Canada | CVBFG50   | 50 lb. (22.68 kg) | Gray  | Bag     |
| Canada | CVBFW50   | 50 lb. (22.68 kg) | White | Bag     |

### TECHNICAL DATA

Exceeds ANSI A118.4 and A118.11.

|                        | VERSABOND FLEX<br>FORTIFIED THIN-SET MORTAR |
|------------------------|---|
| Pot Life               | 4 hours                                     |
| Open Time              | 55 - 60 minutes                             |
| Adjustment Time        | 35 - 40 minutes                             |
| Shear Bond @ 28 Days:  |   |
| Bisque Tile            | 575 psi (40.4 kg/cm <sup>2</sup> )          |
| Porcelain Tile         | 350 psi (24.6 kg/cm <sup>2</sup> )          |
| Quarry Tile To Plywood | 250 psi (17.6 kg/cm <sup>2</sup> )          |

