#### 1 Product Name

VersaBond-LFT RS Rapid Setting Large Format Tile 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

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### 3 Product Description

Versabond-LFT RS professional grade adhesive mortar is a rapid setting, non-sag, nonslump, polymer modified mortar for use with large format porcelain, ceramic and natural stone tile. With a non-slumping formula to eliminate lippage, Versabond-LFT RS can be applied to <sup>3</sup>/<sub>4</sub>" (19mm) thick on horizontal surfaces. Suitable for floors and walls, Versabond-LFT RS exceeds ANSI A118.4FHT and A118.11.

#### **Key Features**

- · For most standard floor and wall installations
- · Supports large and heavy tile for flat, even installations
- For use with in-floor heating systems
- · Approved for industry-recommended interior and exterior applications
- Grout and light traffic in under 2 hours and heavy traffic in 24 hours (in temperate conditions).

## Suitable Tile Types

- Vitreous, semi-vitreous or non-vitreous tile: ceramic, quarry, cement body tile, pavers
- Impervious porcelain
- · Brick and stone veneer
- · Cement-based precast terrazzo
- · Gauged or ungauged natural stone tile

## Suitable Substrates

- Concrete, mortar beds, masonry, Portland cement plaster
- WonderBoard® Lite, cement backerboards
- Liquid applied waterproofing membranes such as <u>RedGard®</u> and <u>Custom® 9240</u>
- Crack prevention sheet membranes such as Crack Buster® Pro
- Exterior Grade Plywood Substrates meeting deflection requirements (interior residential and light commercial dry areas)
- Gypsum wallboard (interior dry areas)
- Existing ceramic tile (scarified)
- Fully bonded sheet vinyl flooring (scarified)
- Plastic laminates (scarified)
- Cutback adhesive (see preparation instructions)

#### **Composition of Product**

Modified dry mortar, which is a proprietary blend of Portland cement, inorganic aggregates, copolymers and chemicals.



#### Benefits of Product in the Installation

- · Rapid setting formulation for quick turn jobs
- Specially formulated for large format tiles
- Non-slumping formula eliminates lippage
- · Cost-efficient, all-purpose mortar
- · Good bond strength
- · Fast curing keeps cold climate jobs moving
- Exceeds ANSI A118.4FHT 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 <a href="MegaLite® Crack Prevention Mortar">MegaLite® Crack Prevention Mortar</a> and <a href="ProLite® Large Tile">ProLite® Large Tile</a> 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 resin agglomerate tile use <u>EBM-Lite™ Epoxy Bonding Mortar 100% Solids</u> or CEG-Lite™ 100% Solids Commercial Epoxy Grout.
- Do not use to install resin-backed stone; use <u>EBM-Lite™ Epoxy</u>
   <u>Bonding Mortar 100% Solids</u>, <u>CEG-Lite™ 100% Solids Commercial</u>
   <u>Epoxy Grout</u> or contact Custom's® Technical Services for recommendations.
- For clear or translucent glass, CUSTOM recommends <u>Glass Tile</u>
   <u>Premium Thin-Set Mortar</u>. When setting glass tile larger than 6" x 6"
   (15 x 15 cm), contact Custom's® Technical Services for recommendations.
- Ensure that the substrate meets deflection requirements.

# **Packaging**

- 50 lb (22.68 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 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
Complies with ISO 13007-2

# **Technical Chart**

Property	Test Method	Requirement	Typical Results			
Open Time	A118.4	≥ 75 psi at 20 minutes	Pass			
4 Week Shear Bond Strength						
Glazed Wall Tile	A118.4	> 300 psi	350-450 psi (2.41 – 3.10 MPa)			
Porcelain Tile	A118.4	> 200 psi	350-450 psi (2.41 – 3.10 MPa)			
Quarry Tile to Plywood	A118.11	> 150 psi	175-225 psi (1.21 – 1.55 MPa)			
Sag on Walls	A118.15	< 0.02 in. (0.5 mm)	Pass			

#### **Environmental Consideration**

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Complete the <u>LEED Product Data Request Form</u> at custombuildingproducts.com for detailed information based on project location. 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

# 5 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 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 soundand 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. Sheet vinyl must be well bonded and stripped of old finish. Roughen the surface by sanding or abrading, then rinse and allow to dry. 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 coarse finish to enhance the bond. Smooth concrete slabs must be mechanically abraded to achieve proper bond.

#### **Bonding to Lightweight Cement and Gypsum Surfaces**

Lightweight or gypsum based underlayments must obtain a minimum 2000 psi (13.8 MPa) compressive strength. The underlayment must be sufficiently dry andproperly 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. Surfaces shall be free of all grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, or any other foreign matter.

All Lightweight cement or Gypsum surfaces should be primed. with a 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 ft2/gal (7.5 M2/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 Surfaces**

Plywood floors, including those under resilient flooring, must be structurally sound and must meet all ANSI A108.01 Part 3.4 requirements. Maximum allowable deflection: L/360 tile L/720 stone. See TCNA F150-13 tile installations, TCNA F141-13 and F250-13 for stone. For questions about proper subfloor installation requirements, call Custom® Technical Services.

#### **Bonding to Backerboards**

As an alternative to an additional layer of plywood, WonderBoard Lite backerboard may be installed over plywood subfloors for ceramic tile installations. Refer to TCNA F144-13 tile installations and TCNA F-250-13 for stone. Call Custom® Technical Services when installing natural stone over plywood subfloor.

#### **Bonding to Existing Surfacing Material**

Resilient flooring or plastic laminates must be well-bonded, as well as clean and free of all contaminates. 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. When sanding, an approved respirator should be used.

## **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**

Movement joints are required for perimeters and other changes of plane in all installations. Expansion joints and cold 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, such as Custom's® 100% Silicone. Contact Custom's® Technical Services for the proper treatment of control or saw cut joints. Refer to TCNA EJ171, F125 and F125A.

# **Mixing Ratios**

Mix 5.5 - 6.0 qts (5.20 L - 5.7 L) clean water per 50 lb (22.68 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 up to 5 minutes, but no longer. Stir again and use. Stir occasionally, but do not add more water. When properly mixed, troweled ridges will stand without slump.

#### **Curing of Product**

Curing time is affected by ambient and surface temperatures and humidity. Use the following as a guideline. Ready for grout and light traffic in under 2 hours in temperate conditions; vehicular traffic in 1-3 days. Before exposure to heavy or vehicular traffic, assure assembly is rated "Heavy 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**

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.

# 6 Availability & Cost

Location	Item Code	Size	Color	Package
USA	VBLFTMRSG50	50 lb (22.68 kg)	Gray	Bag
USA	VBLFTMRSW50	50 lb (22.68 kg)	White	Bag
Canada	CVBLFTMRSG50	50 lb (22.68 kg)	Gray	Bag
Canada	CVBLFTMRSW50	50 lb (22.68 kg)	White	Bag

# 7 Product Warranty

Obtain the applicable **LIMITED PRODUCT WARRANTY** at <a href="https://www.custombuildingproducts.com/product-warranty">www.custombuildingproducts.com/product-warranty</a> or send a written request to Custom Building Products, Inc., Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured under the authority of Custom Building Products, Inc. © 2017 Quikrete International, Inc.

When VersaBond® Fortified Thin-Set Mortar is used as a part of a qualifying full installation system of CUSTOM products, the installation can qualify for up to a 10 year system warranty. CUSTOM will repair and/or replace, at its discretion, the affected area of the system. For more information, find details and limitations to this warranty at <a href="mailto:custombuildingproducts.com">custombuildingproducts.com</a>.

#### 8 Product Maintenance

Properly installed product requires no special maintenance.



#### 9 Technical Services Information

For technical assistance, contact Custom technical services at 800-282-8786 or visit <u>custombuildingproducts.com</u>.

#### 10 Filing System

Additional product information is available from the manufacturer upon request.

#### **VOC Content**

No VOCs

# **Expected Wear**

Properly installed tile will last for more than 60 years.

#### **Related Products**

Fusion Pro® Single Component® Grout

Polyblend® Sanded Grout

Prism® Ultimate Performance Grout

Commercial 100% Silicone Sealant

ProLite® Premium Large Format Tile Mortar

MegaLite® Ultimate Crack Prevention Large Format Tile Mortar



#### Coverage

SQUARE FOOT COVERAGE PER 50 LB BAG (SQUARE METER PER 22.68 KG)

Trowel Size	Min Coverage	Max Coverage
Longest side of tile 8" to 15" use 1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) Square-Notch	60 ft <sup>2</sup> (5.6 M <sup>2</sup> )	67 ft² (6.2 M²)
Longest side of tile more than 15"+ use 1/2" x 1/2" x 1/2" (13 x 13 x 13 mm) Square-Notch	42 ft² (3.9 M²)	47 ft² (4.4 M²)
Longest side of tile more than 15"+ use 3/4" × 9/16" × 3/8" (19 × 14 × 9.5 mm) U-Notch	34 ft² (3.2 M²)	38 ft² (3.5 M²)

Recommended minimum coverage (80% for dry areas and 95% for wet areas and exteriors). Back buttering may be necessary.

Note that mortar coverage does not include backbuttering tiles. When backbuttering, consider the tile underside pattern and depth to estimate thickness and usage to add to your estimate.

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

