

LevelQuik® RS (Rapid Setting) Self-Leveling Underlayment

1 Product Name

LevelQuik® RS (Rapid Setting) Self-Leveling Underlayment

2 Manufacturer

Custom Building Products
13001 Seal Beach Blvd.
Seal Beach, CA 90740-2757
Customer Support: 800-272-8786
Technical Services: 800-282-8786
Fax: 800- 200-7765
Email: contactus@cbpmail.net
custombuildingproducts.com



3 Product Description

Helps level floors prior to the installation of ceramic tile, natural stone, resilient flooring, carpet, wood and other floor coverings. This quick-setting underlayment can be applied to 1" (2.5 cm) thick in one pour and seeks its own level in minutes. With proper installation, the use of LevelQuik® RS can achieve an extra heavy rating for high impact use in food plants, dairies, breweries and kitchens. LevelQuik RS may be applied to in residential structures with floor joists up to 24" o.c. Formulated using Controlled Cure Technology®, LevelQuik RS helps eliminate installation problems such as bond failure, crumbling and staining of resilient flooring caused by the free moisture found in traditional underlayments.

Engineered with [Controlled Cure Technology](#).

Suitable Tile Types

- Vitreous, semi-vitreous or non-vitreous tile: ceramic, mosaic, quarry, cement body tile
- Impervious porcelain and glass tile
- Brick and stone veneer
- Cement-based precast terrazzo
- Natural stone tile
- Stone, terrazzo
- Carpet
- Wood, parquet
- Vinyl composition tile (VCT)
- Sheet vinyl flooring
- Laminated flooring

Suitable Substrates

- Interior and exterior applications
- Concrete
- Masonry
- Mortar beds
- Lightweight concrete
- Air entrained concrete
- Primed gypsum self-leveling underlayment, minimum 2000 psi (13.8 MPa) cured
- Post-tension concrete
- Exterior Grade Plywood
- Primed OSB
- Exterior decks
- Existing ceramic tile
- Resilient flooring
- Cutback adhesive
- Radiant heating systems

Composition of Product

LevelQuik® is a dry, proprietary blend of copolymers, Portland cement, sand and inorganic chemicals.

Benefits of Product in the Installation

- Can be applied from feather edge to 1" (2.5 cm) thick in a single pour
- Reduces bond failure and crumbling of resilient flooring
- Cures fast and develops high early strength for quick installation
- Rated for extra heavy use on wood subfloors with joists to 24" (61 cm) per ASTM C627



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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.
- Do not use as a wear surface.
- 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

4 Technical Data

Applicable Standards

ASTM International (ASTM)

- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

American National Standards Institute (ANSI) ANSI A108.01 & A108.02 of the American National Standards for the Installation of Ceramic Tile

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	Typical Results
Pot Life		30 Minutes
Flow time		10 Minutes
Initial Set	ASTM C-191	90 Minutes
Final Set	ASTM C-191	3-1/2 Hours
Compressive Strength	ASTM C-109	4400 psi (30.3 MPa)
Flexural Strength	ASTM C-109	1100 psi (7.58 MPa)
Walkable Hardness		2 - 4 Hours
Time Before Installing Floor Covering		
Ceramic Tile		4 Hours
Other Floor Covering		14 Hours
Robinson Test	ASTM C-627	Extra Heavy

Environmental Consideration

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

5 Instructions

General Surface Prep

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. 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 broomed or brushed 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 roughened or scarified. Sheet vinyl must be well-bonded and stripped of old finish. Roughen the surface by sanding or scarifying, rinse and allow to dry. Expansion joints should never be bridged with setting material. Do not sand flooring materials containing asbestos. 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.

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 Lightweight Cement and Gypsum Surfaces

Lightweight or gypsum-based underlayments must first be treated with RedGuard® 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 RedGuard® must be primed with properly applied sealer or a primer coat of RedGuard®, consisting of 1-part RedGuard® 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/gallon (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, RedGuard® 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.



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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. See TCNA F150. For questions about proper subfloor installation, call Custom® Building Products.

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.

Expansion Joint placement

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 & F125A.

Mixing Ratios

Mix the entire 50 lb (22.68 kg) bag of powder with 6-1/2 quarts (6.1 L) of clean, cool water.

Mixing Procedures

Slowly add powder to the water while mixing with a heavy-duty 1/2" (13 mm) electric drill and mixing paddle at 500 RPM. Thoroughly mix for 2 minutes to a lump-free consistency.

Application of Product

Apply LevelQuik® Latex Primer with a paint brush, short-nap roller or soft-push broom. Apply a thin even coat and allow to dry approximately 2 hours to a clear film. Pour or pump, and then spread with a long-handled gauged spreader. LevelQuik® RS will seek its own level during the first 10 minutes. For feather edging and touch up, use a smoothing tool. LevelQuik® RS can be applied to 1" (2.5 cm) thick in one application; if a second layer is required, install immediately after the first layer has set to a walkable hardness. If the first layer has dried over 12 hours, re-prime before the second application. For installation on wood subfloors with joists to 24" (61 cm) o.c., apply a 1/2" (13 mm) thick layer of LevelQuik® RS over 3/4" (19 mm) Exterior Grade Plywood with a with a minimum of 2.5# properly-fastened metal lath. For pumping and large scale applications, contact Custom's® Technical Services Department for more information.

Cleaning of equipment

Clean with water before the material dries.

Health Precautions

This product contains Portland cement and free silica. Wear rubber gloves and eye protection. Avoid eye contact or prolonged contact with skin and wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician.

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	Package
USA	LQ50	50 lb (22.68 kg)	Bag
Canada	CLQ50	50 lb (22.68 kg)	Bag

7 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. This warranty is not transferrable.

When LevelQuik® RS (Rapid Setting) Self-Leveling Underlayment is used as a part of a qualifying full installation system of CUSTOM products, the installation can qualify for up to a lifetime 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 custombuildingproducts.com.

8 Product Maintenance

Properly installed product requires no special maintenance.

9 Technical Services Information

For technical assistance, contact Custom® Building Products.

10 Filing System

Additional product information is available from the manufacturer upon request.

Expected Wear

Properly installed tile will last for more than 60 years.

Related Products

LevelQuik® Latex Primer



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Coverage

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

Thickness	Min Coverage	Max Coverage
1/8" (3 mm)	45 sq. ft. (4.2 M ²)	

