



# LevelCure® LCB 951

## Self-Leveling Underlayment 1/8" - 1" (3.2 - 25 mm)

### PRODUCT DESCRIPTION

LEVELCURE® LCB 951 Self-Leveling Underlayment is the state-of-the-art in Portland cement technology. With the sole addition of water, it becomes a free flowing liquid mortar that seeks its own level and produces a smooth flat surface. LEVELCURE LCB 951 has been designed as an underlayment for the fast leveling and smoothing of floor surfaces with a minimum of labor required. The resulting finish is a smooth and durable surface that is acceptable for the installation of all floor coverings.

### ▶ BASIC USE

LEVELCURE LCB 951 is used anywhere an uneven, rough or unfinished concrete surface must be leveled or smoothed before application of ceramic tile, marble, wood, resilient floor coverings or carpets. In addition to leveling concrete floors, LEVELCURE LCB 951 can be used in rehabilitation projects where old terrazzo, ceramic tile, wooden floors and steel decking must be made ready for new floor coverings.

### ▶ AREAS OF USE

LEVELCURE LCB 951 may be used on interior applications where a permanent water-resistant surface is required for receiving decorative floor coverings. LEVELCURE LCB 951 hardens quickly by hydration (curing). Surfaces can be walked on in 2 to 4 hours and can have floor coverings installed within 12 to 24 hours. When cured, the finished underlayment will have similar properties to concrete. LEVELCURE LCB 951 may be applied as thick as 1/8" to 1" (3 to 25 mm) in a single application without fear of shrinking, cracking or spalling. Because its application requires no troweling, LEVELCURE LCB 951 provides the installer considerable cost and time savings over conventional mortars and underlayments.

### ▶ LIMITATIONS

LEVELCURE LCB 951 must not be used over gypsum based surfaces, old adhesive residue, paints, particle board, plastics, vinyl, epoxy or urethane floor coverings. Use in the temperature range of 40°F to 90°F (4°C to 32°C). *(Do not allow mortar to freeze for the first 72 hours.)* LEVELCURE LCB 951 shall never be applied to any surface unless it has been previously primed with LEVELCURE PRIMER 943 to provide adhesion to the substrate and allow the underlayment to retain water for improved flow and higher strengths. LEVELCURE LCB 951 shall not be used as a wearing surface. LEVELCURE LCB 951 is for interior use only. Do not use LEVELCURE LCB 951 over substrates subject to hydrostatic pressure.

### ▶ APPLICABLE STANDARDS

Color — Gray.

Texture — Powder, consisting of Portland cement, graded sand, organic and inorganic chemicals.

Standards — There are no industry accepted

standards for self-leveling underlayments.

### ▶ PACKAGING

50 lb. (22.7 kg) bags.

### INSTALLATION

#### ▶ PREPARATORY WORK

All surfaces to receive LEVELCURE LCB 951 must be structurally sound. Deflection shall not exceed 1/360 of the span including live and dead load. Surfaces shall be free of dust, wax, sealers, old adhesive residue, curing compounds, oil, gypsum based underlayments, surface hardeners, paints, old flooring and other foreign material before application of primer.

#### ▶ CONCRETE FLOORS

Concrete shall be completely exposed, fully cured (28 days minimum), free of moisture and efflorescence. Chip, sandblast or hammer out any spalled unsound concrete. Clean off any resulting dust. Smooth, steel troweled concrete floors must be roughened to ensure a good bond. Prime cleaned surface with LEVELCURE PRIMER 943 diluted at a ratio of 1:1 with water. Apply even coat using brush or broom. On extremely porous concrete, two applications may be required. Allow Primer to dry to tacky surface before applying LEVELCURE LCB 951. Reapply LEVELCURE PRIMER 943 if first application is allowed to dry past 24 hours.

#### ▶ MASONRY SURFACES

Dilute LEVELCURE PRIMER 943 at a ratio of 1:1 by volume with water. Apply even coat to clean surface using brush or broom. Allow to dry to tacky surface before applying LEVELCURE LCB 951.

#### ▶ PLYWOOD

Plywood surfaces shall be of exterior grade, and when placed over conventional floor joists, shall be of a design and thickness to provide a secure, rigid substrate base. Allow a gap of 3/16" to 1/4" (5 to 6 mm) between sheets of plywood. Fill these gaps with C-Cure QUICKCURE 908 dry-set mortar. Prime the plywood subfloor with LEVELCURE PRIMER 943 diluted at the ratio of 1:1 with water. After the primer has dried, nail or staple thin, galvanized metal lath or C-Cure ProLATH 950 to the floor. Next, mix 1 qt. (0.95 L) of LEVELCURE PRIMER 943 with 4 qts. (3.8 L) of water to 1 bag of LEVELCURE LCB 951 powder; mix as normal. Install no less than 1/4" (6 mm) nor more than 1" (25 mm) thickness of the above LEVELCURE LCB 951 mix over the surface following the standard procedure.

#### ▶ SPECIAL SURFACES

Marble, terrazzo and existing ceramic tile surfaces must be well bonded to the subfloor, cleaned of any waxes and abraded to a rough surface prior to priming. Prime the surface. First, dilute LEVELCURE LCB 951 at the ratio of

1 gallon (3.8 L) primer to 1/2 gallon (1.89 L) water, then mix in 1 1/2 gallon (5.68 L) of LEVELCURE LCB 951 powder. (Metal lath is not necessary.) Broom this primer slurry over the subfloor. Let dry, then apply LEVELCURE LCB 951 as directed for concrete floors. Over steel surfaces, consult with C-Cure's Technical Service Department to discuss the particular job conditions. DO NOT USE over particle board, plastic, vinyl, urethane or epoxy floor coverings.

#### ▶ COVERAGE

LEVELCURE LCB 951 will cover approximately 25 sq. ft. (2.3 m<sup>2</sup>) per 50 lb. (22.7 kg) bag at 1/4" (6 mm) thickness. LEVELCURE PRIMER 943 will cover approximately 250 to 300 sq. ft. (23.2 to 27.9 m<sup>2</sup>) per gallon (3.8 L) over smooth concrete.

#### ▶ MIXING

Mix one 50 lb. (22.7 kg) bag of LEVELCURE LCB 951 with a measured amount of water or primer/water blend not to exceed 4 1/2 quarts (4.26 L). Use 4 quarts (3.78 L) in temperatures ranging from 40°F to 55°F (4°C to 13°C). Always add the powder to the total amount of liquid and mix with a 650 RPM power mixer until a lump-free mix is obtained. Experience shows that it is best to mix only 2 bags of LEVELCURE LCB 951 at a time, pour this on the floor, then mix as many additional 2 bag batches as necessary to complete the job. For optimum mixing results, it is advisable to use a C-Cure mixing paddle for minimal air entrapment in the mortar. For information on pumping LEVELCURE LCB 951, consult C-Cure Technical Department.

#### ▶ APPLICATION

Pour the underlayment approximately in place and then finish with C-Cure's adjustable mortar spreader. Spiked shoes should be used if it is necessary to walk in the fresh mortar. A finish blade may be used for featheredging. LEVELCURE LCB 951 will have a flow time of approximately 10 minutes. The finished floor will be ready to walk on in 2 to 4 hours and floor covering may be installed 12 to 24 hours later. Ceramic tile installed with C-Cure Dry-Set Mortar system may be installed on LEVELCURE LCB 951 when the mortar is firm enough to walk on. LEVELCURE LCB 951 shall only be applied over substrates that are between 40°F to 100°F (4°C to 38°C). Do not allow LEVELCURE LCB 951 to freeze for the first 72 hours.

If application of LEVELCURE LCB 951 is to exceed 1" (25 mm) in nominal areas, multiple application layers not greater than 1" (25 mm) per pour shall be used. Each pour shall cure a minimum of 24 hours and the surface of each previous layer must be primed with LEVELCURE PRIMER 943 prior to application of subsequent pours. When multiple application pours [2 or more] are to

be used to achieve an entire floor thickness 2" (51 mm) or greater, it is recommended that a mortar bed be detailed by an architect.

**▶ APPLICATION IN LARGE AREAS**

After primer has been applied, create dams (use wood or weather stripping tape) across the width of the room spacing the dams 10 ft. (3 m) apart. Apply LEVELCURE LCB 951 in the odd numbered swaths created by the dams and allow material to cure beyond its flow time. Then remove the dams and apply LEVELCURE LCB 951 to the even numbered swaths using a "striker" to blend the material at the seams.

**▶ EXPANSION JOINTS**

Expansion joints, saw cut, cold joints or structural cracks shall never be bridged over with LEVELCURE LCB 951. They should continue through the LEVELCURE LCB 951 and subsequent tile work. All joints shall pass through the self-leveling underlayment and tile work. These joints must be directly over structural joints and must never be narrower than the actual joint. Provide expansion joints 20 to 24 ft. (6 to 7.3 m) in each direction. Where floor is exposed to direct sunlight or moisture, provide expansion joints 12 to 16 ft. (3.7 to 4.9 m) in each direction. Install expansion joints where LEVELCURE LCB 951 abuts restraining surfaces such as perimeter walls, dissimilar floors, curbs, columns and pipes. An architect or structural engineer must specify expansion joints and show location and details on drawings.

**▶ CLEANING**

Water is all that is needed to remove uncured LEVELCURE LCB 951.

**▶ CURING**

A minimum cure is obtained in 12 to 24 hours, depending on ambient temperatures. As with concrete, the strength increases significantly with age during the first 28 days. Always check for moisture prior to installation of vinyl flooring.

NOTE: Do not add any other materials to LEVELCURE LCB 951 other than those prescribed by C-Cure. For conditions other than those covered in the instructions, refer to C-Cure's Technical Service Department.

**▶ WARRANTY**

LEVELCURE LCB 951 is included in C-Cure's Five and Ten Year System Warranties. For terms and conditions see Warranty Documents #WRTDS and #CCW10.

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LEVELCURE LCB 951 TECHNICAL DATA		
TEST	TYPICAL VALUES	
A. Working Time @ 70°F (21°C)	20 Minutes	
B. Flowing Time @ 70°F (21°C)	10 Minutes	
C. Initial Set @ 70°F (21°C)	30 Minutes	
D. Final Set @ 70°F (21°C)	2 Hours	
E. Compressive Strength ASTM C109	3 Days 7 Days 28 Days	1650 psi (116 kg/cm <sup>2</sup> ) 2580 psi (181 kg/cm <sup>2</sup> ) 3700 psi (260 kg/cm <sup>2</sup> )
F. Flexural Strength ASTM C-348	28 Days	850 psi (60 kg/cm <sup>2</sup> )
G. Tensile Strength ASTM C190	28 Days	420 psi (30 kg/cm <sup>2</sup> )
H. Bond Strength ASTM D3931	28 Days	400 psi (28 kg/cm <sup>2</sup> )
I. Safety—CAUTION: May cause eye, skin or lung injury. Contains free silica. Prolonged exposure to dust may cause delayed lung disease (silicosis). Eliminate exposure to dust. Use NIOSH approved mask for silica dust. Contains Portland cement. If any cement or cement mixtures get into eye, flush immediately and repeatedly with water, and consult a physician promptly. Freshly mixed cement, mortar, concrete or grout may cause skin injury. Avoid contact with skin where possible and wash exposed skin areas promptly with water.		
KEEP OUT OF REACH OF CHILDREN.		
J. Storage Life—One year if kept dry in unopened containers. Keep material from freezing.		

**GUARANTEE**

The recommendations, suggestions, statements and technical data are based on the best knowledge available to C-Cure and are given for informational purposes ONLY and without any responsibility for their use.

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Materials & Methods Standards Association, Ceramic Tile Distributors Association.

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