

LEVELEX™

Portland Cement-Based, Self-Leveling,
Polymer-Modified Underlayment

MANUFACTURER

L&M Construction Chemicals, Inc.
14851 Calhoun Road
Omaha, NE 68152
Phone: 402-453-6600
FAX: 402-453-0244
Website: www.lmcc.com

PRODUCT DESCRIPTION

LEVELEX is a ready-mixed, high performance, polymer reinforced, self-leveling floor underlayment. LEVELEX was developed to economically resurface and level indoor surfaces prior to installation of subsequent toppings.

LEVELEX, in one operation, develops high bondability, rapid strength and level floors. This cement based, polymer-reinforced, flowable material may be placed in various thicknesses, from feather edge to 5 inches deep.

Basic Use: LEVELEX is a specially formulated cementitious, self-leveling material that flows and seeks its own level to form a smooth and flat underlayment surface. Use LEVELEX for renovating existing commercial and residential structures to correct irregularities in uneven structural floors.

FEATURES & BENEFITS

- *Low in place cost.*
- *Rapid early strength gain.*
- *Long working time - 30 minutes.*
- *Not a gypsum product.*
- *Fluid, easy to place consistency.*
- *Compatible with most tile and carpet adhesives.*

ESTIMATING

LEVELEX is a system that consists of a primer and a 50-pound (22.7-kilogram) bag of Portland cement-based self-leveling compound.

LEVELEX PRIMER is concentrated, and required on all LEVELEX installations. Dilute primer one to one with water, then apply to sound, dry surfaces at a rate of 350-400 ft²/gallon (8-10 m²/L). LEVELEX PRIMER is packaged in 1 gallon (3.8-liter) and 5 gallon (18.9-liter) containers and must be ordered separately, in addition to LEVELEX powder.

Yield: One bag of LEVELEX covers 50 square feet at 1/8" thickness (3mm thick). For thicknesses over 1 inch (25 mm), add 15 pounds (7 kg) of coarse concrete sand (1/8-1/4 inch/3-6 mm in size) per bag of LEVELEX.

TECHNICAL DATA

Applicable standards: ASTM C 387

Physical Properties:

Consistency Highly Flowable
Self-Leveling Work Time..... 20-25 minutes
Set to Foot Traffic 3-4 hours
Set to Receive Floor Covers 16 hours

Compressive Strength, ASTM C 109, psi (MPa)
1 day 2500 (15)
7 days 4000 (28)
28 days 6000 (42)

Flexural Strength, ASTM C 78, psi (MPa)
7 days 740(5)
28 days 1100(7)

Tensile Strength, ASTM C 190, psi (MPa)
1 day 350 (2)
7 days 400 (3)
28 days 450 (3)

Abrasion Resistance, ASTM D 4060
200 cycles, gram loss after 28 days .17

Length Change, ASTM C 157
Air Cure % .04

Bond Strength , psi (MPa)
ASTM C 234, min 400 (3)

Fire Rating, ASTM E 119 1 hour, 1 inch (2.5cm)
Flame Spread.....0
Fuel Contributed.....0
Smoke Development0

INSTALLATION

Surface Preparation: Prepare surface in accordance with ICRI Technical Guideline 03732. Clean concrete surfaces of old tile mastics, oil, grease, dirt, curing compounds, and laitance. All floors must be solid and have a rigid base. Repair all deep cracks. Profile of base concrete best if light to medium scification on short blast.

Priming: All LEVELEX applications require the use of LEVELEX PRIMER prior to placement. To a dry, properly prepared surface, uniformly scrub in a thin layer of LEVELEX PRIMER mixture diluted 1:1 with water. Apply the mixture with a nylon push broom with soft exploded tips. Do not roll, paint or spray primer. Do not puddle. Allow to dry to a completely dried, tack-free film (usually a minimum of 2 hours, but less than 24 hours). Apply two coats to very porous or abraded concrete to reduce pinholes and bubbles after first coat has dried thoroughly (1-2 hours).



LEVELEX



Mixing: Refer to label for proper water requirements. Mix two bags of **LEVELEX** at a time. To mixing container containing proper water amount, slowly add **LEVELEX** powder while mixing with a high shear mechanical mixer. Mix for a full 4 minutes until lump free. Do not over-water or retemper mix. **NOTE:** A heavy-duty, variable-speed ½ inch drill fitted with a paddle mixer operated at 650 rpm produces the required shear.

Placement: Pour or pump **LEVELEX** over primed concrete substrate. Work, as needed, with a long handle spreader or spiked roller. **LEVELEX** is self-leveling during the first 20 minutes.

Deep Applications: When leveling depths are 1 to 5 inches (25-125 mm), extend each bag of **LEVELEX** with 15 pounds (7 kilograms) 1/8-1/4 inch (3-5 mm) dry, clean, coarse sand. Add sand during last minute of mixing. The addition of aggregate will reduce the workability of the product and may make it necessary to place a neat finish layer. Allow first layer to dry 12-16 hours. Reprime top of first layer, allow primer to dry, and then install finish layer.

Curing: **LEVELEX** is self curing. Do not apply curing compound. Do not water cure. Protect from rapid evaporation. **LEVELEX** is walkable in 3-4 hours and will accept floor coverings within 16 hours.

FOR BEST RESULTS:

For indoor use only. Surface application temperatures must be 45°F (7°C) and rising. **LEVELEX PRIMER** is required prior to placing **LEVELEX**. Apply only to thoroughly clean and sound concrete substrate. Do not use over gypsum-based surfaces or wooden floors. All sealers, paints and coatings must be removed. Do not apply over one inch depth unless properly extended with coarse sand. Not recommended in areas that are constantly damp or wet or may become damp or wet. This product is not a vapor barrier and will allow the free passage of water. Do not mix more than what can be placed in 20-30 minutes. Not a wearing surface. Must be covered with flooring. Always install a test area, insuring suitability of **LEVELEX** for intended use.

PRECAUTIONS

Contains Portland cement and crystalline silica. Freshly mixed cement products may cause skin injury. Avoid creating and inhaling dust. Provide ventilation and proper respiratory protection. Wear skin and eye protection. Dust mask recommended.

Please refer to Product Material Safety Data Sheet (MSDS) before using.

STORAGE/SHELF LIFE

LEVELEX bags are to be kept in dry storage to prevent water contamination. Shelf life is one (1) year in unopened bags. **LEVELEX PRIMER** is to be protected from freezing. Freezing destroys **LEVELEX PRIMER**. Shelf life of **LEVELEX PRIMER** is one year in unopened containers when properly stored.

WEBSITE

L&M's convenient internet website offers instant access to Tech Data Sheets, Material Safety Data Sheets, product updates, and other useful information. Visit www.lmcc.com and follow the easy steps. L&M is ready to respond to your concrete information needs - anytime - anywhere!

SHORT SPEC

035400 - Cementitious Flooring Underlayment: Self-leveling, polymer re-inforced, cement based underlayment. Compressive strengths - minimum 4500 in 28 days. . "LEVELEX" by L&M Construction Chemicals, Inc.

LIMITED WARRANTY

This product is warranted to be free of defects in material and workmanship, and conform to L&M Construction Chemicals ("L&M") quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond L&M's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their use of the product. L&M shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. L&M's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.

For Professional Use Only.

©2011, L&M Construction Chemicals, Inc

#704082-8
September 30, 2011