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Cast  
Underlayment

# MasterTop® 111SL

## Self-leveling cementitious floor underlayment

FORMERLY CHEMREX® SELF-LEVELING UNDERLAYMENT

### PACKAGING

50 lb (22.6 kg) polyethylene-lined bags

### YIELD

0.46 ft<sup>3</sup> per 50 lbs (0.013 m<sup>3</sup>/23 kg)

45 ft<sup>2</sup> per 50 lb (4 m<sup>2</sup> per 23 kg) bag  
at 1/8" (3 mm) thickness (neat)

Mortar: 0.64–0.69 ft<sup>3</sup> per 50 lbs  
(0.018–0.02 m<sup>3</sup> per 23 kg) when  
extended with 25–50 lbs (11–23 kg) of  
1/8" (3 mm) course-graded, washed sand

### STORAGE

Store in unopened containers in a  
cool, clean, dry area

### SHELF LIFE

1 year when properly stored

### VOC CONTENT

0 g/L less water and exempt solvents

### DESCRIPTION

MasterTop 111SL is a self-leveling poured-in-place cementitious floor underlayment for interior surfaces.

### PRODUCT HIGHLIGHTS

- High flow consistency that self-levels to a smooth finish
- High early strength allows for rapid installation of floor finish
- Highly fluid, pumpable or pourable for fast installation times
- Extended working time
- Compatible with most carpet and tile adhesives
- Portland cement based for greater stability than gypsum-based products under varying environmental conditions
- Only requires the addition of potable water
- Shrinkage compensated to minimize cracking and spalling

### APPLICATIONS

- Interior
- Under carpeting, tile, linoleum, and hardwood floors
- For leveling rough or rain-damaged concrete floors
- Commercial structures, such as schools, office complexes, hospitals and multi-unit residential structures

### SUBSTRATES

- Concrete

### HOW TO APPLY

#### SURFACE PREPARATION

1. Substrate must be clean, sound and fully cured (28 days). Follow ICRI Guideline no. 310.2 with a CSP of 3–5 for surface preparation.
2. All floors to be covered must be solid and have a rigid base.
3. Repair all deep or wide non-moving cracks with compatible repair products 24 hours before installation.
4. Floors must be thoroughly dry before application of MasterTop 111SL. Before proceeding, determine the moisture content of the floor using the Polyethylene sheet test: Tape a 4 ft<sup>2</sup> (0.5 m<sup>2</sup>) sheet of polyethylene or other clear plastic film to the slab surface according to ASTM D 4263. If no moisture accumulates on the underside of the plastic film after a 24 hour period, the slab is dry enough for coating. If moisture collects under the plastic film, repeat the test until it is no longer visible.
5. To avoid reflective cracking in toppings, always cut or form joints directly above those in the base slab.

#### PRIMING

MasterTop P 160 ensures maximum adhesion between the substrate and the underlayment.

1. Coverage is 300 to 500 square feet per gallon depending on the texture's absorbency of substrate.
2. Allow primer to dry to a tack-free film. (3 to 4 hours depending on drying conditions)

**Technical Data**

**Composition**

MasterTop 111 SL contains Crystalline (Quartz), Silica, Limestone, Alumina Cement, Portland Cement and Anhydrite

**Typical Properties**

PROPERTY	VALUE
<b>Density,</b> lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	120–125 (1,922–2,002)
<b>Working Time,</b> min	30 at 70° F (21° C)

**Test Data**

PROPERTY	RESULTS	TEST METHOD
<b>Compressive Strength,</b> psi (MPa), (Mix water: 5.25 qts/50 lb bag)		ASTM C 109
1 day	2,200 (15.2)	
7 day	3,600 (24.8)	
28 day	4,400 (27.6)	
<b>Flexural Strength,</b> psi (MPa)		ASTM C 348
28 day	1,000 (6.9)	

Cured at 70° F (21° C), and 50% relative humidity.  
 Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

- Very porous concrete floors may require two applications. Allow time for the first coat to dry to a tack-free film before applying the second.
- If the primer dries for more than 12 hours before the application of MasterTop 111SL, the substrate must be reprimed with MasterTop P 160 diluted 1 to 1 with potable water. Protect all primed surfaces from traffic and dust. For applications over non-porous substrates and MasterTop P 220 use MasterTop P 150. Refer to the MasterTop P 150 Technical Data Guide for application instructions.

#### MIXING

- For best results, mix with a Jiffler (PS-2) ICRI 320.5 drill mixing paddle no. 1 or similar mixer attached to a heavy-duty electric drill (minimum 650 rpm).
- Use approximately 5 to 5½ quarts (5 L) of water per 50 lbs (23 kg) of MasterTop 111SL. Gradually add the powder to the water and mix for 2–3 minutes to ensure a uniform, lump-free, smooth consistency.
- Self-leveling working time is approximately 30 minutes at 68° F (20° C). Increased temperatures will significantly reduce working times.
- Do not over water or retemper.

#### APPLICATION

- Pour the product over the prepared substrate or pump through suitable equipment to desired thickness, not less than ⅛" (3 mm). If the product is not extended, avoid depths greater than ½" (13 mm). For hard-to-reach areas and touch-ups, use an epoxy spreader, porcupine roller, or a gage rake.
- MasterTop 111SL will seek its own level in approximately 15 minutes at 70° F (21° C).

#### CURING

No special curing is required.

#### FOR BEST PERFORMANCE

- Do not apply MasterTop 111SL over wood.
- Do not apply indoors where exposed to standing water.
- Do not use more than the recommended amount of water.
- Protect from moisture until surface is covered with tile, carpet, or other flooring materials.

- This is a cement-based product. Do not install MasterTop 111SL if base slab temperature is below 40° F (4° C). In warm weather, use cool water for mixing; proceed quickly with application and take adequate measures to protect MasterTop 111SL from exposure to direct, strong sunlight and wind.
- Conduct a test application to become familiar with product characteristics.
- For thicknesses over ½" (13 mm), add 25–50 lbs (11.3–22.7 kg) of washed, coarse-graded ⅛" (3 mm) topsize sand per 50 lb (22.7 kg) bag of MasterTop 111SL.
- When extending MasterTop 111SL, follow the given mixing instructions and then add the prescribed amount of sand. Then remix to achieve a homogeneous mixture.
- If extending the material with sand for thicknesses over ½", the self-leveling characteristics will be affected. Consider the use of a final capping layer of neat material to achieve a smooth, level finish. Contact BASF Technical Service for additional detail.
- If MasterTop 111SL begins to set before placement, dispose of it immediately. Do not attempt to retemper MasterTop 111SL.
- Use polyethylene or tarps to protect set MasterTop 111SL from rain, snow, water, and other forms of moisture.
- Make certain the most current versions of product data sheet and SDS are being used; visit [www.master-builders-solutions.BASF.us](http://www.master-builders-solutions.BASF.us) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

#### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting [www.master-builders-solutions.basf.us](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbcsct@basf.com](mailto:basfbcsct@basf.com) or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,  
call ChemTrec® 1(800)424-9300.**

#### LIMITED WARRANTY NOTICE

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