



The Chemical Company

PRODUCT DATA

3 03 53 00 Concrete Topping

MASTERTOP® TOPPING 112

Self-leveling, polymer-modified industrial topping

Description

Mastertop® Topping 112 is a polymer-modified cement-based topping. It is ideally suited for leveling or resurfacing distressed concrete floors.

Yield

One 50 lb (22.7 kg) bag of Mastertop® Topping 112, when mixed with the appropriate amount of water to produce a self-leveling consistency, will cover approximately 23 ft² (2.1 m²) at 1/4" (6 mm) thickness.

Packaging

50 lb (22.7 kg) multi-wall bags

Shelf Life

1 year when properly stored

Storage

Store in unopened containers in a clean, dry area between 50 and 90° F (10 and 32° C).

Features

- High strength
- Remains workable for over 15 minutes with slight agitation
- Highly fluid; pumpable or pourable
- Rapid strength gain
- Single-component cement-based product
- Polymer modified
- Highly durable
- Fast-setting

Benefits

- Handles heavy loads
- Facilitates proper placement
- For easy installation and lower in-place cost
- Fast turn-around occupancy
- Easy mixing
- Resistant to cracking
- Resists gouging from normal construction activity
- Ready for foot traffic after 3 hours; return to service in 24 hours

Where to Use

APPLICATION

- Rough, uneven, or distressed floors
- On flat and superflat floors
- Industrial applications, such as aisles and work areas
- Warehouse floors
- Utility areas

LOCATION

- Interior

SUBSTRATE

- Over existing concrete

How to Apply

Surface Preparation

1. Substrate must be sound, fully cured, clean, and free of oil, sealers, curing compounds, cutback, paint, polymer coatings, dust, or other foreign (bondbreaking) matter. Remove all weak or broken pieces of concrete or other loose material. Use mechanical equipment like sandblasting, shotblasting, or hydroblasting to obtain adequate surface preparation. Profile the surface to a minimum of CSP 5 in accordance with ICRI No. 03732. Do not use a method of surface preparation that will fracture the concrete. Verify the absence of microcracking or bruising in accordance with ICRI Guideline No. 03732.

2. Fill (grout) joints and cracks to prevent seepage and loss of material. Consult your BASF representative for product recommendations.

NOTE: To avoid reflective cracking, always cut or form joints in toppings directly above those in the base slab.



Technical Data¹

Composition

Mastertop® Topping 112 consists of cement, sand, dry polymer, and additives.

Typical Properties

PROPERTY	VALUE
Self-leveling time, min, at 70° F (21° C)	15

Test Data

PROPERTY	RESULTS	TEST METHODS
Compressive Strength , psi (MPa) (Mix water: 4.0 qts/50 lb [3.8 L/22.7 kg] bag)		ASTM C 109
1 day	2,100 (14.5)	
7 day	4,200 (29.0)	
28 day	5,000 (34.5)	
Flexural Strength , psi (MPa)		ASTM C 348
28 Day	1,000 (6.9)	
Abrasion Resistance , in (mm), depth of wear, after curing 28 days		ASTM C 779, Procedure A
30 min	0.064 (1.6)	
60 min	0.097 (2.4)	
Set Time , hrs:min		Gillmore Needle: ASTM C 266
Initial	1:20	
Final	2:00	

The data shown are based on controlled, air cured laboratory tests. Atmospheric and jobsite conditions may cause reasonable variations from the results shown. Mix entire bag of Mastertop® Topping 112 when preparing cubes for strength tests.

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C) and 50% relative humidity.

Priming

1. Dilute MB Primer II 1 to 1 with water.
2. Apply a thin film of diluted primer to properly prepared substrate using a push broom. One gallon (3.8 L) of diluted MB Primer II will cover approximately 350 – 400 ft² (8.6 – 9.8 m²/L). Avoid puddling of primer.
3. Allow primer to dry completely to a blue film (3 – 4 hours at 70° F [21° C] and 50% relative humidity).

IMPORTANT: MB Primer II must be dry (not tacky) before application of Mastertop® Topping 112. If concrete is extremely porous, 2 coats of MB Primer II may be necessary.

5. Because MB Primer II re-emulsifies in contact with the wet material, the primed substrate may be left for up to 3 days without repriming. In the meantime, the surface must remain clean and free of any debris. If area becomes dirty or contaminated, the surface must be cleaned and reprimed.

Mixing

1. Add Mastertop® Topping 112 to water (not water to material). Mix 4 qts (3.8 L) of sufficiently clean, drinkable water to a 50 lb (22.7 kg) bag of material.

2. The best way to evaluate flow consistency is to measure with a flow ring based on flow test using a 7/8" (22 mm) high, 2" (51 mm) inside-diameter PVC pipe. The optimal flow is 5-1/2 – 6-1/2" (14 – 16 cm).
3. Using a blade that produces a high shearing action and a 1/2" drill at 600 rpm, mix for 3 – 5 minutes. For larger jobs, use a suitable paddle-type mortar mixer.
4. Once the water content is determined, use a calibrated bucket with holes drilled at the proper height to spill out excess and maintain constant water content.
5. Before the actual job, make trial mixes to familiarize the applicator with the product in relation to local job conditions.

Placing

1. Pour the product over the prepared substrate or pump it through a suitable pump to desired thickness. The minimum thickness is 1/4" (6 mm); the maximum thickness is 3/4" (18 mm). Mastertop® Topping 112 will seek its own level in approximately 15 minutes at 70° F (21° C). For hard-to-reach areas and touch-ups, use a spreader or come-along.

2. Mastertop® Topping 112 may be extended with 25 lbs 11.3 kg) of clean 3/8" (10 mm) pea gravel. Aggregate extension will impede the flow. A slight amount of water may be added to improve flowability but should not exceed 1/4 quart/50 lb bag. Aggregate extension will also leave the surface less smooth than desired. For this reason leave the extended material 1/4" (6 mm) below the final surface and cap with neat material within 24 hours.

Curing

1. After air curing for approximately 48 hours, Mastertop® Topping 112 must be sealed to avoid penetration of water and any contaminants. Until surface is properly sealed, protect it from rain, snow, and other forms of moisture.
2. To seal, apply an appropriate sealing compound such as Acryseal® HS.
3. The specific sealer used depends on the intended use of the floor surface. Consult your local BASF representative for suggestions.

For Best Performance

- Contact your local representative for a pre-job conference to carefully plan each step of the installation.
- DO NOT install Mastertop® Topping 112 if base slab temperature is below 40° F (4° C).
- Precondition these materials to approximately 70° F (21° C) for 24 hours before using.
- Conduct a 10 by 10 ft test application to become familiar with the product's characteristics and to verify the ultimate appearance.
- Do not apply Mastertop® Topping 112 over fresh, plastic concrete.
- For placement over substrates not mentioned on this product data sheet, consult your local BASF representative.
- To ensure proper bond, apply MB Primer II to mechanically prepared substrate before applying Mastertop® Topping 112.
- Use only clean, potable water when mixing Mastertop® Topping 112.
- Do not use more than recommended amount of water.
- Protect from moisture until surface is sealed.
- Do not use in continuously wet or moist environments.
- Do not use exterior.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) 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 and Safety

MASTERTOP® TOPPING 112

WARNING!

Mastertop® Topping 112 contains silica, amorphous; portland cement; alumina cement; silica, crystalline quartz.

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Waste Disposal Method

This product when discarded or disposed of is not listed as a hazardous waste in federal regulations. Dispose of in a landfill in accordance with local regulations.

For additional information on personal protective equipment, first aid, and emergency procedures, refer to the product Material Safety Data Sheet (MSDS) on the job site or contact the company at the address or phone numbers given below.

Proposition 65

This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

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

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