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Concrete
Finishing

MasterTop[®] P 220

Low-odor waterborne epoxy floor primer

FORMERLY CHEMREX CONCRETE FLOOR PRIMER

PACKAGING

3-gallon (11.36 L) kits in 5-gallon (18.9 L) pails

36 kits per pallet

YIELD

350–400 ft²/gal (8.58–9.82m²/L) at 4 wet mils (0.1 mm) film thickness. Coverage rate will vary based upon profile and porosity of the substrate.

STORAGE

Store in unopened containers in a clean, dry area. Keep from freezing.

SHELF LIFE

12 months when properly stored

VOC CONTENT

118 g/L, less water and exempt solvents

DESCRIPTION

MasterTop[®] P 220 is a two-component waterborne epoxy primer for concrete slabs. It is designed to manage and reduce moisture vapor emission of concrete slabs prior to the installation of flooring systems.

PRODUCT HIGHLIGHTS

- Waterborne for low odor and reduced VOC levels
- Reduces moisture vapor transmission by 50% for successful floor installations
- Fast drying for reduced downtime

APPLICATIONS

- Interior
- As a moisture mitigation primer on horizontal floor slabs

SUBSTRATES

- Concrete

HOW TO APPLY

SURFACE PREPARATION

1. Concrete surfaces must be fully cured, structurally sound, clean, and free of dust, oil, grease, water, curing compounds, sealers, waxes, paint, or any contaminants that might inhibit proper bond.
2. Repair concrete surfaces and install required joint sealants and fillers as necessary.
3. Designed joints in substrate must be carried through the application of MasterTop® 110 SL.
4. The surface to be sealed must be clean, strong, and mechanically profiled in accordance with ICRI Guideline No. 310.2 (CSP 3-5) to permit proper bond.
5. After profiling, measure the moisture vapor transmission rate (MVT) per ASTM F 1869 (Calcium chloride test). An MVT rate in excess of 3 lb/1000 ft² in 24 hours indicates the need for MasterTop® P 220 prior to installation of MasterTop® underlayments.
6. One coat of MasterTop P 220 will typically reduce MVT by half. Multiple coats of MasterTop P 220 may be required. Once the MVT is under 3 lbs/1000 ft² in 24 hours, the flooring installation products can be applied.

MIXING

Mix ratio by volume:

Part A: 100 parts

Part B: 95 parts

Mix ratio by weight:

Part A: 100 parts

Part B: 90 parts

NOTE: This product has a limited pot life; complete all preparations before mixing.

Using product beyond its pot life will result in diminished product performance.

1. Before mixing the two components together, premix each component separately, wearing appropriate personal protective equipment (PPE) to avoid injury from splashes.
2. Pour entire contents of Part A from the pail into Part B. Scrape out remaining material in the liner, being careful not to spill any. The Part B container is oversized to allow for easy mixing.

3. Do not mix by hand. Mix with a Jiffy mixer blade and an electric drill at very low speed for 3-4 minutes. Scrape sides of container several times to ensure complete mixing. Keep the mixer blade immersed in the material to avoid introducing air bubbles.
4. Pot life of MasterTop P 220 is approximately 90 minutes at 70° F (21.1° C) and 50% Relative Humidity.

APPLICATION

1. Ambient and surface temperatures must be between 60° and 80° F (16-27° C) during the application of MasterTop P 220.
2. MasterTop P 220 can be applied when the floor is damp but surface dry. No standing water should be present.
3. Apply the mixed material from a roller tray using a high-quality 3/8" (10 mm) woven roller at a rate of 350-400 ft²/gallon (8.6-9.8m²/L), or 4 wet mils (0.1mm) thickness. Install evenly, avoiding buildup or puddling in low spots. Complete coverage is required to ensure the absence of pinholes or voids in the finish.
4. Install MasterTop P 220 prior to installing flooring underlayments, such as MasterTop® 111 SL, MasterTop® 115 FC or MasterTop® 116 FC. Apply underlayments or acrylic adhesives between 6 and 48 hours after installing MasterTop P 220. For best adhesion, prime the surface with MasterTop® P 150 before installing underlayments. Polyurethane or hybrid adhesives should be applied between 24 and 48 hours after the final coat of MasterTop P 220.

DRYING AND RECOAT TIMES

- Times assume 75° F (24° C) and 50% Relative Humidity.
- Tack free: 4-6 hours
- Foot traffic: 6-8 hours
- Recoat time: 4-6 hours
- Lower temperatures and higher relative humidity will extend the drying time to as much as 48 hours due to reduced evaporation rate. Cure times over 48 hours at standard temperatures shown above will necessitate abrasion of the coating to gain proper adhesion.

CLEAN UP

Immediately clean equipment with soap and warm water. Cured material must be removed mechanically.

FOR BEST PERFORMANCE

- Provide adequate forced air ventilation to facilitate evaporation of water from the system.
- For interior use only; will yellow under exposure to UV radiation.
- Do not use MasterTop P 220 on vertical surfaces.
- Do not use MasterTop P 220 with gypsum concrete or low-density concrete.
- Use of MasterTop P 220 beyond its pot life will result in diminished product performance.
- Do not use where moisture can reach the underside of the coating or where MVT exceeds 12 lbs/1000 ft²; a vapor barrier may be required in these instances.
- Do not subject MasterTop P 220 to continuous water immersion.
- MasterTop P 220 may crack if applied directly over elastomeric sealants.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Technical Data

Composition

MasterTop P 220® Concrete Floor Primer is an epoxy resin in a co-solvent emulsion carrier.

Compliances

- Canadian approval for use in establishments that handle food
- USDA compliant for use in meat and poultry areas

Typical Properties

PROPERTY	VALUE
Viscosity, cps	260
Solid Content, % by weight	51
Drying Time, hrs	5
Coverage Rate, ft²/gal (m²/3.8L)	350–400 (8.6–9.8)

Test Data

PROPERTY	RESULTS	TEST METHODS
Flash Point, ° F (° C)	> 200 (93)	ASTM D 93
Water Vapor Permeability, perms		ASTM D 1653-85 or ASTM D 1653
7 days (dry)	2.80	
7 days (wet)	12.71	
Abrasion Resistance, mg lost (after 7 day cure); CS-17 wheel, 1,000 cycles, 1,000 g load	43	ASTM D 4060-90 or ASTM D 4060
Coefficient of Friction, dry, 12 cycles (at standard conditions)	0.65	ASTM D 2047 (minimum of 0.5 to qualify as slip resistant)
Pull-Off Strength, psi (after 7 day cure)	> 300, depending on substrate	ASTM D 4541
Gloss, at 60 °	62	TTS-141C method 6101.1 or ASTM D 523

Testing conditions: 75 ° F (24 ° C) and 50% relative humidity.

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

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.com/en-us, e-mailing your request to mbsbscst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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