



Master Protective Coatings Inc.

Product Description

MPC-100 is a 2-component, 100% solids, self-leveling and high-build epoxy floor coating. It is designed to be used as a protective floor coating on concrete, over an existing epoxy coating or to create metallic/decorative flooring systems. It can also be used as the binder component for resurfacing or patching surfaces exposed to severe and aggressive industrial environments. MPC-100 is a specifically formulated cycloaliphatic coating that reduces water spotting and amine blushing while providing excellent adhesion, abrasion, impact and chemical resistance.

This seamless coating from Master Protective Coatings is offered in a wide number of colors and can be top coated with a variety of MPC products to achieve different gloss finishes and textures. This coating contains no solvent, is complaint with the CFIA regulations for indirect food contact and meets the VOC regulations limit of under 100 g/L for architectural floor coatings.

Areas of application

- Industrial Use - Garages; Warehouses; Airports and hangars; Processing and manufacturing plants
- Commercial Use - Shopping malls and boutiques; Hotels; Offices; Showrooms; Restaurants; Hospitals; Schools; Community centers
- Residential Use – Entrances and hallways; basements; entertainment rooms; bathrooms; kitchens and living rooms; outdoors spaces and pool outlines

Packaging and Recommended Thickness

MPC- 100 is offered in the following kit sizes:

- 3-gallon kit (7.56L resin (A) and 3.78L hardener (B))
- Bulk packaging also available upon request

Metallic pigments are offered in 6 oz containers (1 pigment pod per 3-gallon kit)

Recommended Film Thickness: Clear Coat: 5-8 mils
Metallic Coat: 32-40 mils

Product Coverage:

1st Clear Coat: 200-300 sq. ft. / 3.78L (1 US gal.) @ 5-8 mils dft
2nd Clear Coat: 133-200 sq. ft. / 3.78 L (1 US gal.) @ 8-12 mils dft
Metallic Coat: 50 sq. ft. / 3.78 L (1 US gal.) @ 32 mils dft

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Surface Preparation

Remove dust, dirt, grease, oil and all other contaminants with proper cleaner/degreaser. Prepare the surface mechanically as per ICRI-CSP2 profile by diamond grinding to ensure removal of laitance, curing agents and sealers. The compressive strength of a newly poured concrete substrate must be at least 25 MPA (3635 psi) after 28 days cure and at least 1.5 MPA (218 psi) tensile strength. Be careful with condensation (within 10 degrees of the dew point). All cracks, holes and irregularities must be repaired with our epoxy crack filler (MPC-125) prior to applying the coating.

Mixing Instructions

The products must be conditioned between for 18°C (65°F) and 30°C (86°F) prior to application.

Clear/Colored version: Pre-mix each component separately for 2-3 minutes each. Open container with 2 parts of component A in it, then add the 1 part of component B to it (mixing ratio 2:1). Mix the components for at least 2-3 minutes using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture.

Metallic version: Pre-mix each component separately for 2-3 minutes each. Open container with 2 parts of component A in it, then add 6 ounces of metallic pigment and mix approximately 1 minute using a low-speed drill (150-200 rpm). Let the colored resin sit for at least 30 minutes to ensure proper pigment wetting. Then add 1 part of component B (mixing ratio 2:1). Mix the components for at least 2-3 minutes using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture.

Product Application

1. Apply 1st coat of MPC-100 using a rubber squeegee and roll to obtain a uniform coating (using a fine quality 10mm roller).
2. Apply 2nd coat of MPC-100 as a finish coat, using a rubber squeegee and roll with a fine quality 10mm roller to obtain a uniform finish.

(For metallic or decorative finishes please inquire on application procedures)

Clean equipment with xylene. Once the product has hardened, it may only be removed mechanically.

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Product Restrictions

- Not recommended for application at temperatures below 10°C / 50°F or above 30°C / 86°F.
- Ambient humidity of the surroundings should not exceed 85% during application and during curing process.
- Substrate must be clean, sound and dry.
- Substrate temperature must be 3°C (5.5°F) above measured dew point.
- Humidity content of substrate must be < 4% at time of application.
- Do not apply on porous surfaces where a transfer of humidity may occur during the application.
- Applying this product on a substrate without a moisture barrier may risk delamination due to hydrostatic pressure.
- Freshly applied product must be protected against moisture, condensation and water for at least 48 hours.
- Surface discoloration of product may occur when exposed to UV rays.
- Exposure during the curing stage of the coating to the by-products of propane combustion may cause discoloration (amine blushing)

Health and Safety

Components A and B contain toxic and corrosive ingredients. Consult the safety data sheet (S.D.S) for further information.

Technical Properties

Mix Ratio:	By volume: 2-parts resin (A) to 1-part hardener (B) By weight: 100g of resin (A) to 42g of hardener (B)
Viscosity:	Resin (A): 1200 – 1400 cps Hardener (B): 200 – 300 cps Mixed: 500 – 600 cps
Pot Life (142g):	50 minutes at room temperature

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Physical Properties

Solids by Weight:	100% (+/- 1%)
Shelf Life:	1 year in unopened containers
Abrasion Resistance:	Taber abraser CS-17 calibrase wheel with 1000-gram total load and 1000 cycles = 50 mg loss
Flexural Strength:	5,500 psi, ASTM D638
Compressive Strength:	10 500 psi, ASTM D695
Tensile Strength:	6 500 psi, ASTM D638
Adhesion:	>300 psi, ASTM D4541 (concrete failure)
Hardness:	Shore D = 78-80
Application Temperature:	15°C-21°C with relative humidity below 85%
Drying Times:	21°C / 70°F @ 50% relative humidity (Cure times vary depending on temperature) Pot life per 3-gallon kit: 20-25 minutes Re-coat or topcoat: 8-12 hours Light foot traffic: 12-24 hours Full cure (heavy traffic) - 7 days

Disclaimer and Product Warranty

MPC warrants that our products are free from manufacture defects in accordance with our quality control procedures. Any products proven defective are limited to the replacement of defective product or refund of the purchase price as determined by MPC. Please contact your local MPC sales representative for more information and warranty requirements.

The information and recommendations contained in this technical data sheet are based on reliable test results according to MPC. The data mentioned are specific to the material indicated. If used in combination with other materials, the results may be different. It is the responsibility of the user to validate the information therein and to test the product before using it. MPC assumes no legal responsibility for the results obtained in such cases. MPC assumes no legal responsibility for any direct, indirect, consequential, economic or any other damages except to replace the product or to reimbursement the purchase price, as set out in the purchase contract.

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