





#### **Product Description**

MPC-120 is a 2-component, 100% solids, chemical resistant high-build epoxy floor coating. It exhibits advanced chemical resistance to a broad range of chemical such as acids, organic solvents and bases. 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.

TECHNICAL DATA SHEET

#### Areas of application

• <u>Industrial Use</u> - Garages; warehouses; airports and hangars; processing and manufacturing plants; chemical warehouses; clean rooms; laboratories; printing shops; mechanical rooms

#### **Packaging and Recommended Thickness**

MPC-120 is offered in the following kit sizes:

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

Recommended Film Thickness:  $1^{st}$  Coat: 5-8 mils  $2^{nd}$  Coat: 8-12 mils

Product Coverage: 1<sup>st</sup> Clear Coat: 200-300 sq. ft. / 3.78L (1 US gal.) @ 5-8 mils dft 2<sup>nd</sup> Clear Coat: 133-200 sq. ft. / 3.78 L (1 US gal.) @ 8-12 mils dft

#### **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.

Master Protective Coatings Inc.

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### **Mixing Instructions**

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

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.

## **Product Application**

1. Apply coat of MPC-120 using a rubber squeegee and roll to obtain a uniform coating (using a fine quality 10mm roller).

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

## **Product Restrictions**

- $\circ$  Not recommended for application at temperatures below  $10^{\circ}C / 50^{\circ}F$  or above  $30^{\circ}C / 86^{\circ}F$ .
- 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.
- $\circ$  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.
- o 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.

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# **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): 1200 – 1300 cps Mixed: 1100 – 1200 cps
Pot Life (142g):	50 minutes at room temperature

# **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	10 500 psi, ASTM D695
Strength:	
Tensile Strength:	6 500 psi, ASTM D638
Adhesion:	>300 psi, ASTM D4541 (concrete failure)
Hardness:	Shore D = 78-80
Application	15°C-21°C with relative humidity below 85%
Temperature:	
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**

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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