



Master Protective Coatings Inc.

## Product Description

MPC-301 is a two-component, high-solids, aliphatic polyurethane coating designed as a UV-stable, chemical-resistant topcoat. It gives a satin appearance and demonstrates excellent physical properties and resistance to industrial traffic. It can be applied over an epoxy primer or used to coat an existing epoxy or urethane coating. This product is also ecological and contains no VOCs.

## Principal applications

- UV stable topcoats
- Industrial Use - Garages; Warehouses; Airports and hangars; Processing and manufacturing plants. Maintenance facilities

## Packaging and Recommended Thickness

MPC- 301 is offered in the following kit sizes:

- 1-gallon kit (3.78L) / including anti-slip abrasive  
Mix Ratio by volume 4A:1B
- Bulk packaging also available upon request

Product Coverage:

500 sq. ft. / 3.78L (1 US gal.) @ 3.2 mils dft (81 microns)

## 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).

## Mixing Instructions

Pre-mix each component separately for 2-3 minutes each. Open container of component A then add component B to it (mixing ratio 4:1 by volume). To obtain a satin finish, add bag of abrasive grit to the mixture. 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.

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## Product Application

1. Apply 1st coat of MPC-301 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

- 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 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.

## Health and Safety

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

## Technical Properties

Mix Ratio:	By volume: 4-parts hardener (A) to 1-part resin (B) By weight: 100g of hardener (A) to 20g of resin (B)
Viscosity:	Mixed: 300 – 400 cps
Pot Life (120g):	120 minutes

## Physical Properties

Shelf Life:	1 year in unopened containers
Working Times:	30 minutes
Drying Times:	Light foot traffic - 24 hours (24C and 50% relative humidity) Full cure and full chemical resistance (heavy traffic) - 7 days
Abrasion Resistance (CS-17/1000cycles/1000g)	8.8, ASTM D4060

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Static coefficient of friction	0.60, ASTM D4060
Traction resistance	6250 (43.092), ASTM D2370
Elongation	7, ASTM D2370

## Chemical Resistance

Products	1 day	7 day
Hydrochloric acid, 10%	Excellent	Excellent
Hydrochloric acid, 30%	Excellent	Excellent
Nitric acid, 10%	Good	Weak
Phosphoric acid, 50%	Good	Good
Sulfuric acid, 37% (battery acid)	Excellent	Good
Acetic acid, 10%	Excellent	Excellent
Citric acid, 10%	Excellent	Excellent
Oleic acid	Excellent	Excellent
Ammonium hydroxide	Excellent	Excellent
Sodium hydroxide	Excellent	Excellent
Ethylene glycol (antifreeze)	Excellent	Excellent
Isopropyl alcohol	Good	Good
Methanol	Good	Weak
Aircraft fuel	Excellent	Excellent
Gasoline	Excellent	Excellent
Mineral spirits	Excellent	Excellent
Xylene	Excellent	Excellent
Mineral oil	Excellent	Excellent
Motor oil	Excellent	Excellent
Skydrol	Excellent	Excellent

## 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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