REVÊTEMENTS MPC COATINGS

TECHNICAL DATA SHEET

MPC-301

3K ALIPHATIC URETHANE, SATIN FINISH

PRODUCT DESCRIPTION

MPC-301 is a 3-component, high solids, aliphatic moisture cure polyurethane coating designed as a UV stable, chemical resistant topcoat. It provides a satin finish and demonstrates excellent chemical and abrasion resistance. It can be applied over an existing epoxy or urethane coating.

AREAS OF APPLICATION

Residential Use – Entrances and hallways; basements; entertainment rooms; bathrooms; kitchens and living rooms; outdoors spaces and pool outlines.

Commercial Use - Shopping malls and boutiques; Hotels; Offices; Showrooms; Restaurants; Hospitals; Schools; Community centers.

Industrial Use - Garages; Warehouses; Airports and hangars; Processing and manufacturing plants.

ENVIRONMENTAL APPROVALS/ CERTFICATES

- Meets CFIA and USDA requirements for indirect food contact / use in food plants.
- Conforms with LEEDv4 EQ credit: Low emitting materials SCAQMD Method 304-91 for architectural coatings.
- VOC content <100 g/L

PACKAGING AND RECOMMENDED THICKNESS

MPC- 301 is offered as a 1-gallon kit.
Color pigment packs are offered in 16 oz jars (1/2 jar / 1-gallon kit)

Recommended Film Thickness / Coverage
3.2 mils DFT. / 500 sq. ft. / per gallon 3.78 L

PRODUCT PROPERTIES

Mix Ratio:	4 parts hardener A / 1 part resin B by vol. 0.9 kg (2 lbs.) part C		
Viscosity: **ASTM D445-06**	Resin 200-300 cps. Hardener 500-600 cps.		
Solids by wt.:	85%		
Shelf Life:	1 year when stored in original, unopened packaging. Store dry at temperatures between 15°C to 30°C (59 °F to 86 °F).		
Working time on substrate:	35-40 minutes 21°C / 70°F @50% relative humidity		
Curing Schedule	10°C (50°F)	20°C (68°F)	30°C (86°F)
Recoat (max. 48 hrs)	24-48 hrs.	18-24 hrs.	16-18 hrs.
Foot traffic	~2 days	~1 days	~18 hrs.
Vehicular traffic	~4 days	~2 days	~2 days
Full Chemical Cure	~10 days	~7 days	~5 days
Product Application:	Apply using a fine quality urethane grade roller / clean roller with tape to remove residual lint. Dip roller in tray and lightly roll out excess in application tray. Roll in a V-shaped cross passes and reroll in straight passes to avoid roller marks. Clean equipment with appropriate solvent. Once the product has hardened, it may only be removed mechanically.		

Curing times are subject to variations determined by the ambient conditions, including air and substrate temperature, as well as relative humidity. It is imperative to shield the coating from moisture, condensation, and direct water exposure during the initial 24-hour curing period. If the recommended recoating time has exceeded 48 hours, it becomes necessary to sand the prior coat to eliminate any glossy finish. Moreover, thorough cleaning by vacuuming and solvent wiping is essential to eradicate any dust particles. The surface should exhibit a consistent matte appearance, entirely devoid of any gloss, following the cleanup process, before proceeding to apply the next coat.

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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 of cure and at least 1.5 MPA (218 psi) tensile strength. **Be careful with condensation (at least 3 degrees of the dew point).** All cracks, holes and irregularities must be repaired with a crack filler prior to applying the coating. **Not recommended for use directly on concrete.**

MIXING INSTRUCTIONS

Empty container B (resin) into container A (hardener). Mix and add component C. Mechanically mix the combined product for a maximum of 1 minute using a low-speed drill (300-450rpm) to reduce air entrapment and to obtain a homogeneous mixture. Once the product is mixed proceed to application instructions. **Do not let the product sit in container as it will rapidly start to react and cure.**

MIX A&B

LOW SPEED
1MIN MAX

TECHNICAL PROPERTIES

Abrasion Resistance, ASTM D4060	Taber abraser CS-17 calibrase wheel 1000 cycles/1000 g = 0.02-gram loss
Elongation @ Break, ASTM D638	7% at break
Tensile strength, ASTM D638	6,250 psi
Coefficient of Friction, ASTM E303-93 DCOF	~0.80 wet (with aluminum oxide)
Koing Pendulum Hardness ASTM D4366	175 sec @ 3 mils.
VOC, ASTM D2369	< 10 g/L
GLOSS, ASTM D523	35 GU @ 60° (with aluminum oxide)

PRODUCT RESTRICTIONS

- Not recommended for application at temperatures below 10°C / 50°F or above 30°C / 86°F. An application below/above these temperatures will result in decreased product workability and cure times.
- Ambient humidity of the surroundings should not exceed 85% during application and during curing process.
- The substrate temperature must be at least 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.
- Reduced chemical resistance and staining possible if pigmented.
- **Rubber burns caused by quick stops or starts on coating can cause permanent marking. Rubber tires can permanently stain the coating due to plasticizer migration.**

DISCLAIMER AND 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 products 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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