

PRODUCT DESCRIPTION

MPC-290 is a solvent based, two component, VOC complaint, aliphatic polyaspartic polyurea coating. It was specifically developed to be used as a UV stable topcoat finish where installation downtime is limited. It is recommended for areas where a high build coat is desired over colored coatings or vinyl flake broadcast systems. MPC-290 provides superior abrasion, chemical, and UV resistance with a crystal-clear glossy finish.



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/ CERTIFICATES

- 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- 290 is offered in the following kit sizes:
 2-gallon kit 3.78L resin (A) and 3.78L hardener (B)
 Bulk packaging also available upon request

Available in clear.
 Color pigment packs are offered in 16 oz jars (1 jar / 2-gallon kit)
 The addition of color packs may reduce product work time.

Recommended Film Thickness / Coverage

Over an existing coating: 8 mils / 400 sq. ft. / per 2-gallon kit
 Over vinyl flakes: 12 mils / 267 sq. ft. / per 2-gallon kit

PRODUCT PROPERTIES

Mix Ratio:	1 part resin A / 1 part hardener B by vol.		
Viscosity:	Resin 300-400 cps.		
ASTM D445-06	Hardener 100-150 cps.		
Solids by wt.:	90%		
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:	15-20 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)	4-6 hrs.	2-4 hrs.	~2 hrs.
Foot traffic	~6 hrs.	~3-6 hrs.	~3 hrs.
Vehicular traffic	~24-36 hrs.	~1 day	~1 days
Full Chemical Cure	~10 days	~7 days	~5 days
Product Application:	Apply using a rubber squeegee and back roll using a fine quality 10mm roller to obtain a uniform coating. 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 using a screed mesh to eliminate any glossy finish. Moreover, thorough cleaning by vacuuming 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.

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 A (resin) and container B (hardener) into a large mixing pail. 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.**



TECHNICAL PROPERTIES

Abrasion Resistance, ASTM D4060	Taber abraser CS-17 calibre wheel 1000 cycles/1000 g = 0.03-gram loss
Elongation @ Break, ASTM D638	40% at break
Tensile strength, ASTM D638	5,150 psi.
Coefficient of Friction, ASTM E303-93 DCOF	~0.75 wet
Koing Pendulum Hardness ASTM D4366	175 sec @ 8 mils.
VOC, ASTM D2369	<50 g/L
GLOSS, ASTM D523	89.5 GU @ 60°
Pull-Off Strength, ASTM D7234	> 363 psi (substrate failure)

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.