

PRODUCT DESCRIPTION

MPC-400 is a deep penetrating, three component water-based epoxy coating designed to be applied as a primer coat on humid, damp, or newly poured 'green' concrete surfaces. This coating promotes strong substrate and intercoat adhesion with excellent moisture permeability while helping to eliminate substrate outgassing. **MPC-400** has been tested according to ASTM C309 meeting specifications to be used as a concrete curing compound. This low solids coating exhibits excellent concrete penetration, zero VOC's, fast dry time / return to service and good chemical resistance to solvents and aqueous acids.



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- 400 is offered in the following kit sizes:

1-gallon kit: 560 g resin (A) and 700 g hardener (B)

Addition of water is needed to fill gallon up to 3.785 L

Recommended Film Thickness / Coverage

Primer coat: 500-600 sq. ft. / per 1-gallon kit.

PRODUCT PROPERTIES

Mix Ratio:	560 g resin A / 700 g hardener B / ~2.5 L of water		
Viscosity:	Resin 1000 -1100 cps		
ASTM D445-06	Hardener 600 - 800 cps		
Solids by wt.:	25%		
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). Protect product from freezing. Two-part epoxies may exhibit non-permanent, reversible crystallization when exposed to cold temperatures or temperature cycling during transit and storage.		
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	1 hr.	45 min.	30 min.
Foot traffic	2 hrs.	1 hrs.	45 min.
Full Chemical Cure	~10 days	~7 days	~5 days
Product Application:	Apply using a fine quality 10mm roller to obtain a uniform coating. Ensure the substrate is completely saturated with product. Clean equipment with water. 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.			

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.

MIXING INSTRUCTIONS

Empty container A (resin) into container B (hardener). Mechanically mix the combined product using a low-speed drill (300-450rpm) until mixture becomes a thick creamy consistency. Fill the remainder of container with water in increments of four equal parts and mix well between additions. 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

Pull-Off Strength, ASTM D7234	> 400 psi (substrate failure)
Permeability to Water Vapor, ASTM E-96	0.06 g/m ² 24hr mmHg
VOC, ASTM D2369	0 g/L

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.
- The substrate temperature must be at least 3°C (5.5°F) above measured dew point.
- Exposure during the curing stage of the coating to the by-products of propane combustion may cause discoloration (amine blushing).

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.