



Master Protective Coatings Inc.

Product Description

MPC-100 FC is a 2-component, fast curing 100% solids, self-leveling and high-build epoxy floor coating. It is designed to be used as a protective floor coating on concrete, over an existing epoxy coating or to create metallic/decorative flooring systems. It can also be used as the binder component for resurfacing or patching surfaces exposed to severe and aggressive industrial environments. MPC-100 FC is a specifically formulated cycloaliphatic coating that reduces water spotting and amine blushing while providing excellent adhesion, abrasion, impact and chemical resistance.

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.

Areas of application

- Industrial Use - Garages; Warehouses; Airports and hangars; Processing and manufacturing plants
- Commercial Use - Shopping malls and boutiques; Hotels; Offices; Showrooms; Restaurants; Hospitals; Schools; Community centers
- Residential Use – Entrances and hallways; basements; entertainment rooms; bathrooms; kitchens and living rooms; outdoors spaces and pool outlines

Packaging and Recommended Thickness

MPC- 100 FC is offered in the following kit sizes:

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

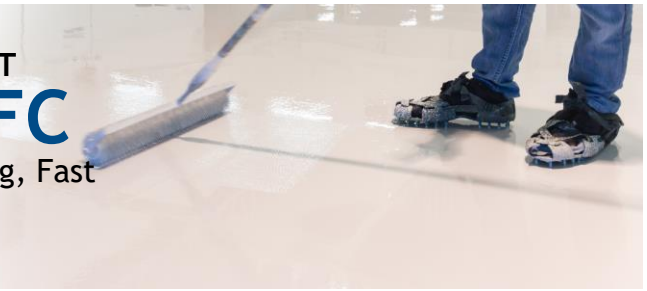
Metallic pigments are offered in 6 oz containers (1 pigment pod per 3-gallon kit)

Recommended Film Thickness: Clear Coat: 5-8 mils
Metallic Coat: 32-40 mils

Product Coverage: 1st Clear Coat: 200-300 sq. ft. / 3.78L (1 US gal.) @ 5-8 mils dft
2nd Clear Coat: 133-200 sq. ft. / 3.78 L (1 US gal.) @ 8-12 mils dft
Metallic Coat: 50 sq. ft. / 3.78 L (1 US gal.) @ 32 mils dft

Master Protective Coatings Inc.

1483 rue Michelin
Laval, Québec, H7L 4S2
Phone : 1.800.324.5819
e-mail : info@mpcoatings.ca



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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 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.

Mixing Instructions

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

Clear/Colored version: 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 a **minimum of 1 minute** using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture.

Metallic version: Pre-mix each component separately for 2-3 minutes each. Open container with 2 parts of component A in it, then add 6 ounces of metallic pigment and mix approximately 1 minute using a low-speed drill (150-200 rpm). Let the colored resin sit for at least 30 minutes to ensure proper pigment wetting. Then add 1 part of component B (mixing ratio 2:1). Mix the components **for minimum of 1 minute** using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture.

Product Application

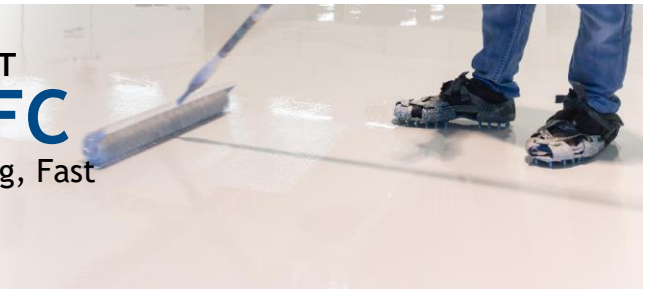
1. Apply 1st coat of MPC-100 FC using a rubber squeegee and roll to obtain a uniform coating (using a fine quality 10mm roller).
2. Apply 2nd coat of MPC-100 FC as a finish coat, using a rubber squeegee and roll with a fine quality 10mm roller to obtain a uniform finish.

(For metallic or decorative finishes please inquire on application procedures)

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

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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 must be clean, sound and dry.
- 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.
- 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

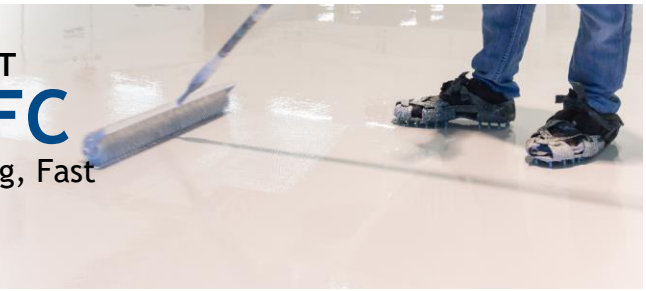
Components A and B contain toxic and corrosive ingredients. Consult the safety data sheet (S.D.S) for further information.

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): 600 -800 cps Mixed: 800 -900 cps
Pot Life (142g):	15 minutes at room temperature

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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 Strength:	10 500 psi, ASTM D695
Tensile Strength:	6 500 psi, ASTM D638
Adhesion:	>300 psi, ASTM D4541 (concrete failure)
Hardness:	Shore D = 78-80
Application Temperature:	15°C-21°C with relative humidity below 85%
Drying Times:	21°C / 70°F @ 50% relative humidity (Cure times vary depending on temperature) Pot life per 3-gallon kit: 10 minutes Re-coat or topcoat – 4-6 hours Light foot traffic- 8-12 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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Section 1. Identification

Product identifier	MPC-100B
Other means of identification	None
Recommended use and restrictions on use	Hardener
Initial manufacturer identifier	Master Protective Coatings Inc. 8615 rue du Creusot St.-Leonard, Quebec H1P 2A8 1-800-324-5819
Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

Section 2. Hazard identification

Classification of hazardous product (name of the category or subcategory of the hazard class)

- Acute toxicity oral (Category 4)
- Acute toxicity dermal (Category 4)
- Skin corrosion (Category 1)
- Serious eye damage (Category 1)
- Skin sensitization (Category 1)
- Reproductive toxicity (Category 2)
- Hazardous to the aquatic environment – Acute (Category 1)
- Hazardous to the aquatic environment – Chronic (Category 1)

Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)



Danger

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H361 Suspected of damaging fertility or the unborn child.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dusts or mists.
- P264 Wash hands/nails/face thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P312 Call a doctor if you feel unwell.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P363 Wash contaminated clothing before reuse. P332 + P313 IF SKIN irritation or rash occurs: Get medical attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a doctor.
- P308 + P313 IF exposed or concerned: Get medical attention.
- P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.



Other hazards known None

Section 3. Composition/information on ingredients

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
Isophorone diamine	2855-13-2	20-30
Benzyl alcohol	100-51-6	1-10
4-Nonylphenol, branched	84852-15-3	20-40
Polyoxypropylene diamine	9046-10-0	20-40
Bisphenol A (epichlorohydrin) epoxy resin	25085-99-8	1-10

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

Section 4. First-aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
Ingestion	IF SWALLOWED: Immediately call a doctor. DO NOT INDUCE VOMITING. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (15-20 minutes). Wash contaminated clothing before reuse.
Eye contact	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Most important symptoms and effects (acute or delayed)	Causes severe skin, respiratory or digestive tract burns and eye damage.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

Section 5. Fire-fighting measures

Specific hazards of the hazardous product (hazardous combustion products)

Carbon oxides and other irritant/toxic gases and fumes.

Suitable and unsuitable extinguishing media

In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.

Special protective equipment and precautions for fire-fighters

During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Section 7. Handling and storage

Precautions for safe handling

Wear gloves/protective clothing/eye protection/face protection.

Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers



for leaks before handling. Label containers appropriately. Ensure proper ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.

Section 8. Exposure controls/Personal protection

Control parameters (biological limit values or exposure limit values and source of those values)

Exposure limits: None;

Appropriate engineering controls

Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Individual protection measures/personal protective equipment

Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. We recommend wearing chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact during all handling operations. We recommend wearing protective chemical splash goggles/safety glasses or other to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.

Section 9. Physical and chemical properties

Appearance, physical state/colour	Viscous liquid	Vapour pressure	Not available
Odour Characteristic		Vapour density	Not available
Odour threshold Not available		Relative density	0.957
pH Not available		Solubility	Not available
Melting/freezing point Not available		Partition coefficient - n- octanol/water	Not available
Initial boiling point/range Not available		Auto-ignition temperature	Not available
Flash point > 93°C		Decomposition temperature	Not available
Evaporation rate Not available		Viscosity	Not available
Flammability (solids and gases) Not available		VOC	Not available
Upper and lower flammability/explosive limits Not available		Other	None known

Section 10. Stability and reactivity

Reactivity

Does not react under the recommended storage and handling conditions prescribed.

Chemical stability

Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions

None known

Conditions to avoid (static discharge, shock or vibration)

None known

Incompatible materials

Oxidizing materials; Acids; etc.

Hazardous decomposition products

None known



Section 11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.

Symptoms related to the physical, chemical and toxicological characteristics

Skin burn, redness, stinging, pain; Eye burn, redness, tearing; Digestive tract burn; Respiratory tract burn, coughing, shortness of breath, dizziness, drowsiness, nausea and headaches.

Delayed and immediate effects (chronic effects from short-term and long-term exposure)

Skin Sensitization – Possible;
 Respiratory Sensitization – No data available;
 Germ Cell Mutagenicity – No data available;
 Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA;
 Reproductive Toxicity – Possible;
 Specific Target Organ Toxicity — Single Exposure – No data available;
 Specific Target Organ Toxicity — Repeated Exposure – No data available;
 Aspiration Hazard – No data available;
 Health Hazards Not Otherwise Classified – No data available.

Numerical measures of toxicity (ATE; LD₅₀ & LC₅₀)

CAS 84852-15-3 LD₅₀ Oral - Rat – 1246 mg/kg & LD₅₀ Dermal - Rabbit – 2040 mg/kg; CAS 2855-13-2 LD₅₀, Oral - Rat 1030 mg/kg; CAS 100-51-6 LD₅₀, Oral - Rat 1360 mg/kg; CAS 9046-10-0 LD₅₀, Oral- Rat - 2885.3 mg/kg; LC₅₀, Inhalation - Rat - 8h > 0.74 mg/l; LD₅₀, Dermal-Rabbit - 2980 mg/kg;
 ATE not available in this document.

Section 12. Ecological information

Ecotoxicity (aquatic and terrestrial information) No data available for this product

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects Very toxic to aquatic life with long lasting effects.

Section 13. Disposal considerations

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Section 14. Transport information

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; P-Nonylphenol); CLASS 8; PG III

UN number; Proper shipping name; Class(es); Packing group (PG) of the 49 CFR (USA)

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; P-Nonylphenol); CLASS 8; PG III

UN number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime)

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; P-Nonylphenol); CLASS 8; PG III

UN number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air)

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; P-Nonylphenol); CLASS 8; PG III

Special precautions (transport/conveyance) May also be shipped as a LIMITED QUANTITY in accordance with TDG.

Environmental hazards (IMDG or other) Marine Pollutant



Bulk transport (usually more than 450 L in capacity)

Possible

Section 15. Regulatory information

Safety/health Canadian regulations specifics

Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).

Environmental Canadian regulations specifics

Refer to Section 3 for ingredient(s) of the DSL

Safety/health/environmental outside regulations specifics

United States OSHA information: This product is regulated according to OSHA (29 CFR).

United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14.

United States TCSA information: Refer to the ingredients listed in Section 3.

National Fire Protection Association (NFPA):

HEALTH: 3 FLAMMABILITY: 1 INSTABILITY: 0 SPECIAL HAZARDS: Refer to Section 2 & 3.

HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Proposition 65: This product does not contain a chemical known to the State of California to cause cancer or other reproductive harm.

Section 16. Other information

Date of the latest revision of the safety data sheet

April 06, 2020 version 1 (NSS ENTREPRISE INC.)

References

Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute toxicity estimate
CAS	Chemical Abstract Service
DSL	Domestic Substance List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TDG	Transport of dangerous goods in Canada
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.