Metallic Marble Epoxy

Epoxy Coating System

DESCRIPTION

Metallic Marble Epoxy is a high solid, special grade, two component, self-leveling epoxy coating designed to restore floors concrete and improve their appearance. It can be mixed with various colors or metallic powder to deliver opaque and glossy finish floors. It shows excellent mechanical properties and good chemical resistance. It has very good durability while maintaining its artistic look.

ADVANTAGES

- Dense surface resistant to bacteria and moisture and easy to clean.
- May apply several layers onto itself with excellent adhesion.
- Contains no solvent with a very low VOC content, allowing for interior application without harmful odors.
- Excellent adhesive properties, allowing application on other firm and hard coating, as well as a good bond to the substrate.
- Can be applied to plywood.

PRIMARY APPLICATIONS

- Industrial facilities
- Commercial spaces
- Decorative and metallic floors
- Institutional buildings
- Food-safe environments (CFIA compliant)

Technical Data

Packaging	11.35 L (3 US gal), 56.7 L (15 US gal)
Color	Part A: Upon Request Part B: Clear to Amber
Recommended Thickness	Primer: 6 – 8 mils Finish Coat: 8 - 1 2 mils
Coverage @ 8 mils	200 ft^2/gal
Coverage @ 32 mils	50 ft^2/gal
Mix Ratio (by volume)	A : B = 2: 1 (100:50)
Mix Ratio (by weight)	Clear: A : B = 100 : 41 - 48 Colors: A : B = 100 : 39 - 45
Gel Time (100 g @ 25°C)	45 - 60 minutes
Gel Time (1 Gal and a ½ @ 25°C)	15 - 20 minutes
Solids Content	100% by weight and volume
VOC (g/L)	Part A: 30, Part B: 15, Mix: 45
Thinner Recommended	Xylene
Shelf Life	12 months (unopened, away from extremes)
Viscosity @ 25°C (cP)	Clear: A: 1500 – 1800, Part B: 60 - 65, Mix: 650 - 750
Specific Gravity	Clear: A: 1.14 – 1.16, Part B: 0.98

Physical Properties @ 23°C (73°F), 50% R.H.

Bond Strength (psi) (ASTM D4541)	>300 (substrate rupture)
Water Absorption (%) (ASTM D570)	0.3
Abrasive Resistance (ASTM D4060)	0.10 g (CS17, 1000g, 1000 cycles)
Hardness (Shore D), ASTM D2240	85 - 90
Tensile Strength (psi) (ASTM D638)	6500
Compressive Strength (ASTM D695)	11000 - 12500
Elongation (%), ASTM D638	6.7
Coefficient of Friction (ASTM D1894)	0.5–0.7
Fire Rating (CAN/ULC S102 / ASTM E84)	Flame Spread: 5; Smoke Developed: 94 (Class A)

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Curing Details

Temperature	Foot Traffic	Light Traffic	Full Cure
10°C (50°F)	30 hours	5 days	10 days
20˚C (68°F)	24 hours	3 days	7 days
30°C (86°F)	16 hours	2 days	5 days

Before Applying DE-100 over primer	Minimum	Max
10°C (50°F)	N.A	N.A
20˚C (68°F)	12 hours	2 days
30°C (86°F)	6 hours	1 day

Before Applying Second Coat of DE-100	Minimum	Max
10°C (50°F)	30 hours	3 days
20˚C (68°F)	24 hours	2 days
30°C (86°F)	16 hours	1 day

SURFACE PREPARATION

Old Concrete
Concrete surface must be cleaned and mechanically prepared using shotblasting, sand blasting, and/ or diamond grinding. All oils, sealers, curing agents, waxes and fats must be removed prior to product application. Do not apply onto wet substrates. Chloride, moisture, and pH levels should be checked prior to application. Primer is suggested prior to application on porous concrete substrates. All cracks and substrate imperfections should be filled and repaired with Epoxy Crack Repair prior to application.
New Concrete
New concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs./inch2) after 28 days and traction resistance must be at least 1,5 MPa (218 lbs./inch2). Shotblasting, sand blasting, and/or diamond grinding is required to remove the surface laitance that appears during the concrete finishing and curing process. DE-100 primer should be used to
seal porous concrete surfaces prior to application. All cracks and substrate imperfections should be filled and repaired with Epoxy Crack Repair prior to application.

MIXING

Materials should be pre-conditioned to a minimum of 10°C (50°F) prior to use. Thoroughly mix each component separately using paddle mixers and a drill for a minimum of 2 minutes to place the solids content evenly in suspension. Pour component B into component A using the proper mixing ratio of 2A:1B by volume. Mix both components for at least 3 minutes using a drill at low revolution (300 to 450 rpm) to reduce trapping of air. While mixing, scrape bottom and walls of container at least once to ensure a homogeneous mix. Only prepare quantity that may be applied during pot life of mixture.

For Metallic Application:
Add the Metallic Pigment (Part C) to the Resin (Part A) and mix thoroughly until fully homogeneous. Add the Hardener (Part B) using the correct mixing ratio of 2A:1B by volume. Mix all components for at least 3 minutes using a drill with a low-speed mixer (300–450 RPM) to minimize air entrapment. Scrape the sides and bottom of the container at least once during mixing to ensure a consistent blend. Then apply the product on the floor
Note: Only mix the quantity that can be applied within the product’s pot life.

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APPLICATION

Apply mixed product on the prepared surface tightly (thin film) using a rubber rake and pass a roller to obtain a uniform coating. Avoid creating puddles.

CLEANING

Clean all tools and materials with the cleaner/thinner for epoxies. Wash hands and skin carefully with warm soapy water. Once product has hardened, it may only be removed through mechanical means.

RESTRICTIONS

- Minimum/Maximum temperature of substrate: 15°C / 30°C (59°F / 86°F).
- Maximum relative humidity during application and curing: 85%.
- Substrate temperature must be 15°C (59°F).
- Humidity content of substrate must be <4 % when coating is applied.
- Do not apply on porous surfaces where a transfer of humidity may occur during application.
- Avoid exterior use on substrates at ground level.
- Protect from humidity, condensation and contact with water during the 24-hour initial curing period.
- Surface may discolor in areas exposed to regular ultraviolet light.

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult a physician. For respiratory irritations, move affected person outdoors to fresh air. Remove contaminated clothes and wash before reuse. Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke irritation. Avoid eye contact. Contact with product may cause severe burns. Avoid breathing vapors released from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Always work in a properly ventilated area.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

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