

METALLIC EPOXY M-RESIN | B

Let Metallic Pigment Flow

KRETUS® METALLIC EPOXY is a two-component epoxy formulated specifically for the KRETUS® Metallic system. It is less viscous than traditional Top Shelf® Epoxy, which lets metallic pigment disperse and move more freely through the coating and makes the Metallic system easier to install. Metallic Epoxy Part A and Metallic Epoxy Part B are formulated to cure as a set and cannot be combined with any other product in the Top Shelf® Epoxy line.

ADVANTAGES

- meets USDA, FDA, EPA, and SCAQMD standards
- eligible for LEED points
- low viscosity for improved metallic pigment flow
- easy installation
- high impact/traffic/wear resistance
- low maintenance
- low odor
- waterproofing

SUGGESTED USES AND APPLICATION AREAS

- base coat for the KRETUS® Metallic system
- decorative systems
- interior
- over concrete, wood, metal, non-glazed tiles
- industrial, commercial, residential, and occupied spaces

KRETUS® SYSTEMS

- Metallic

For all KRETUS® systems, see kretus.com/systems.

FINISH AND COLOR

- metallic; final appearance varies with pigment selection and application technique

See kretus.com/color-charts.

PRECAUTIONS AND LIMITATIONS

- **Application temperatures:** When temperatures increase, material cures faster. Material cures slower when temperatures decrease. If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative. Apply material when temperature is decreasing—adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning.
- **Color:** Pigments or colorants may affect working times, reduce chemical resistance, and increase potential for stain.
- **Compatibility:** Metallic Epoxy Part A and Metallic Epoxy Part B are formulated to cure as a set. DO NOT combine either component with any other product in the Top Shelf® Epoxy line.
- **Film thickness:** DO NOT apply a single coat thicker than 63 mils (25 square feet per gallon). DO NOT let material puddle on floor. This may cause white spots to appear when coating cures.
- **Mock-ups:** Complete samples and onsite mockups to ensure desired results are achieved.
- **Prime coat:** A prime coat may be required when stem walls are highly absorbent, if outgassing is suspected or prevalent, or if concrete is very porous or in poor condition. All concrete repairs must be completed before installing any system.

- **UV resistance:** Coating will amber over time. If color stability is important, protect the installation with a UV-stable KRETUS® top coat.
- **Weather conditions:** DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.

COMPONENTS

Single Kit

- Part A: Metallic Epoxy M-Resin, 2 gal
- Part B: Metallic Epoxy Part B, 1 gal

Larger sizes may be available through KRETUS® distributor.

SAFETY, TESTING, AND WARRANTY

- **Safety:** Personal protective equipment and safety conditions must be considered before using any product. Review all relevant and current documentation including Safety Data Sheets (kretus.com/safety-data-sheets).
- **Testing:** Before installation: Test and look for any unknown site conditions and/or defects. To ensure desired results are achieved, the system should be tested in a small area on site before full installation begins.
- **Warranty:** For warranty to be upheld, Pre- and Post-Job Checklists (kretus.com/project-planning) must be completed.

STORAGE AND APPLICATION TEMPERATURES

Ideal Storage Environment	Dry, Out of Direct Sunlight, 60-80°F
Material Temperature During Application	50-70°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	<70°F, <90% RH (Relative Humidity)

Average Application Time

Ambient Temperature	<70°F, <90% RH
Working Time	120 min
Recoat Window	24 hr
Return to Service (Foot Traffic)	36 hr
Full Cure (Vehicle Traffic)	7 days

All times recorded using 1-quart sample at ambient temperature of 70°F and 50% humidity.

SURFACE PREPARATION

Before installing any coating, the substrate must be sound, meaning all necessary repairs have been completed. It must be clean, dry, and free of any contaminants, moisture, materials, or particles that may hinder material's adhesion to the substrate. If applying directly over concrete, the substrate must be mechanically profiled to ICRI CSP 3. Different projects may require a different CSP. Contact your KRETUS® Technical Representative. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Mix Ratio by Volume	A:B = 2 gal:1 gal
Optional additive: Metallic pigment	See Color Chart for mix ratio (kretus.com/color-charts).
Mixing Tool(s)	low-RPM, low-torque drill and Jiffler-style double-bladed mixer

General Mixing Directions	Mix Part A with metallic pigment until color and consistency are uniform. Add Part B and continue to mix for 2 min or until uniform.
----------------------------------	--

Mixing Guidelines

Premeasure components to make sure you are using the correct mix ratio. Combine components according to mix instructions. Continue mixing until the coating's consistency is uniform. The coating must remain thoroughly mixed during the application.

Coverage Rates

Refer to the applicable KRETUS® General Overview (kretus.com/product-general-overviews) and Installation Guide (kretus.com/installation-guides) for project-specific coverage rates.

Coverage rates are for estimating purposes only. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer.

Application Guidelines

- **Applying material:** After mixing, pour material in even rows along the substrate. Spread material evenly using the appropriate tools to achieve the thickness specified.
- **Wet edge:** Keep a wet edge while applying products.
- **Spiked shoes:** Wear shoes with rounded metal spikes when walking on wet material.
- **Nap roller:** When using a 3/8-inch non-shed nap roller to smooth the coating, always roll in the same direction. Start each row from the same end. If you roll back and forth or switch directions, it may leave roller marks.

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	40 mg loss
Abrasion Resistance with Anti-Slip	ASTM D4060	24-30 mg
Adhesion Strength	ASTM D4541	400-500 psi
Coefficient of Friction	ASTM D2047	Based on top coat texture (see kretus.com/anti-slip)
Compressive Strength	ASTM D695	13,700 psi
Flame Spread/ Critical Flux	ASTM E648	Class 1
Flame Spread/ Rate of Burning	ASTM D635	Self-extinguising
Flexural Strength	ASTM D790	9,000 psi
Hardness, Shore D	ASTM D2240	85
Impact Resistance	ASTM D2794	120 in-lbs
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Modulus of Elasticity	ASTM D790	5.0 x 10 ⁵ psi
Moisture Vapor Emission Rate	ASTM F1869	0.08 perms
Moisture Vapor Permeance	ASTM E96	5%
Relative Humidity	ASTM F2170	<80%
Tensile Elongation at Break	ASTM D638	5%
Tensile Strength	ASTM D638	7,800 psi
Thermal Coefficient of Linear Expansion	ASTM D696	18.0 x 10 ⁻⁶ in/in/°F
Water Absorption	ASTM D570	<0.05%

CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.

2 = Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.

3 = High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.

NR = Not recommended

Acetic Acid (Component of Vinegar), 10%	1	Methanol	NR
Acetic Acid, 30%	2	Methylene Chloride	NR
Acetone	NR	MIBK (Methyl Isobutyl Ketone)	NR
Ammonia, 30%	1	Mineral Oil	1
Ammonium Hydroxide, 30%	1	Motor Oil, SAE 30	1
Antifreeze (Coolant)	1	Mineral Spirits	NR
Benzene (Component of Crude Oil)	3	Mustard, Yellow	2
Benzyl Alcohol	3	Nitric Acid, 30%	NR
Betadine, 11%	NR	Oleic Acid	1
Boric Acid, 4%	1	Oxalic Acid, 10%	1
Brake Fluid, DOT 3	1	Phosphoric Acid, 20%	3
Chromic Acid, 10%	3	Potassium Hydroxide, 30% (Alkaline Batteries, Soap Manufacturing)	1
Chromic Acid, 30%	3	Propylene Glycol	1
Citric Acid, 30%	1	Silver Nitrate, 20% (Photo Labs)	3
Ethanol, 95%	NR	Sodium Chloride, 20%	1
Ethyl Acetate, 99% (Food/Beverage Facility)	NR	Sodium Hydroxide (Caustic Soda), 50%	1
Formaldehyde, 37%	3	Sodium Hypochlorite (Bleach), 10%	2
Premium Gasoline	1	Sodium Hypochlorite (Bleach), 30%	3
Hydraulic Fluids (Machinery, Automobile, Aviation)	2	Sodium Persulfate (Bleaching and Oxidizing Agent)	3
Hydrochloric Acid, 10%	3	Sulfuric Acid, 37% (Battery Acid)	NR
Hydrochloric Acid, 30%	3	Tannic Acid, 20%	3
Hydrofluoric Acid, 10%	1	Tartaric Acid, 10%	1
Hydrofluoric Acid, 30%	3	Transmission Fluid	1
Hydrogen Peroxide, 10%	NR	Urine, Dog or Cat	1
Hydrogen Peroxide, 50%	NR	Urea (Nitrogen-Rich Fertilizer)	1
Iodine, 2%	3	Vinegar, Distilled	1
Isopropyl Alcohol	3	Water (Hard Water from Well)	1
Jet Fuel	1	Whisky	1
Lactic Acid, 30% (Dairy Facility)	NR	Wine, Cabernet Sauvignon	2
Lime Juice	2	Xylene	3
Magnesium Hydroxide	1		
MEK (Methyl Ethyl Ketone)	NR		

Pigments or colorants may affect working times, reduce chemical resistance, or increase potential for stain.

Coatings tested at ambient temperature over 1-3 days' exposure to chemical. To ensure desired results are achieved, products should be tested on site before installation.