



ALIPHATIC MC

KRETUS® ALIPHATIC MC is a single-component, UV-resistant aliphatic urethane available in gloss or low gloss and best used as a top coat or as a concrete sealer.

ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Antibacterial
- Can Be Applied at or Above 40°F
- Easy Installation
- High Traffic and Hot Tire Resistance
- Low Maintenance
- Scratch Resistance
- UV Resistance
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Top Coat
- Concrete Sealer

KRETUS® SYSTEMS

- Color Chip
- Color Quartz
- Color Splash
- Industrial Sand
- Top Shelf® Metallic
- Walls and Wall Cove

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

FINISH AND COLOR

- Gloss or Low Gloss
- Clear or Opaque When Pigmented with Poly Colorant

See kretus.com/color-charts.

PRECAUTIONS AND LIMITATIONS

- DO NOT apply single coat greater than 7 mils thick (230 SF per gallon). Do not install directly over moisture-sensitive concrete, broadcasted vinyl chip, 30-grit or larger quartz, or 80-mesh or larger aluminum oxide.
- DO NOT let material puddle on floor. This may cause white spots to appear when coating cures.
- Complete samples and onsite mockups to ensure desired results are achieved.
- **Application temperatures:** Material cures faster as temperature and humidity increase. Material cures slower as they decrease.
- Application times are based on test results compiled by lab technicians in a controlled setting. All times recorded using 1-quart samples.
- If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative.
- 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.
- Apply material when temperature is decreasing—adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.

PACKAGING

- 1 gallon

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	5-85°F, 25-80% RH (Relative Humidity)

Average Application Time

Ambient Temperature	50°F, 30% RH	50°F, 75% RH	70°F, 50% RH	90°F, 20% RH	90°F, 80% RH
Working Time	30-45 min	25-35 min	20-30 min	15-20 min	10-15 min
Recoat Window	16-24 hrs	12-16 hrs	10-12 hrs	8-12 hrs	6-8 hrs
Return to Service (Foot Traffic)	36 hrs	36 hrs	30 hrs	24 hrs	24 hrs
Full Cure (Vehicle Traffic)	7 days	7 days	7 days	7 days	7 days

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 CSP 1. Different projects may require a different CSP. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Pre-mix application before

Standard Kit Mix Ratio	single component
Poly Colorant	8 oz per gallon
Mixing Drill	low-RPM, low-torque drill with Jiffler double-bladed mixer
Mixing Directions	Mix application until color and texture are uniform throughout.
Mixing Directions With Colorant or Anti-Slip	Mix application to ensure no particles have settled. Add additive and mix until consistency is uniform throughout.

Coverage Rates per Standard Kit

Top Coat, 5-7 mils	230-320 SF/GAL
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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.

Keep a wet edge while applying product. Wear spiked shoes when walking on material.

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	15 mg loss
Adhesion Strength	ASTM D4541	400 psi, 100% Concrete failure
Coefficient of Friction - Dry	ASTM D2047	0.7
Coefficient of Friction - Wet	ASTM D2047	0.6
Flame Spread/ Critical Flux	ASTM E648	Class 1
Flame Spread/ Rate of Burning	ASTM D635	Self-extinguishing
Flexibility/ Mandrel Bend	ASTM D522	Passes 1/8-in.
Gloss, 60°	ASTM D523	90
Hardness (König Hardness)	ASTM D4366	150
Impact Resistance	ASTM D2794	120 in-lbs.
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Tensile Elongation at Break	ASTM D2370	5%
Tensile Strength	ASTM D2370	6,000 psi
UV Resistance	ASTM D4587	High (Level 3)
Water Absorption	ASTM D570	<0.05
Yellowing Resistance	ASTM G154	< 3.0 ΔE, gray (color tested for visible changes)

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	Premium Gasoline	1
Acetic Acid, 30%.....	2	Hydraulic Fluids	
Acetone	1	(Machinery, Automobile, Aviation)	2
Ammonia, 30%.....	1	Hydrochloric Acid, 10%	1
Ammonium Hydroxide, 30%.....	1	Hydrochloric Acid, 30%	3
Antifreeze (Coolant).....	1	Hydrofluoric Acid, 10%	1
Benzene (Component of Crude Oil)	1	Hydrofluoric Acid, 30%	3
Benzyl Alcohol	1	Hydrogen Peroxide, 10%.....	1
Betadine, 11%	1	Hydrogen Peroxide, 50%.....	1
Boric Acid, 4%	1	Iodine, 2%	3
Brake Fluid, DOT 3	1	Isopropyl Alcohol	2
Chromic Acid, 10%	1	Jet Fuel	1
Chromic Acid, 30%	1	Lactic Acid, 30% (Dairy Facility).....	3
Citric Acid, 30%	1	Lime Juice	1
Ethanol, 95%	1	Magnesium Hydroxide	1
Ethyl Acetate, 99% (Food/Beverage Facility)	1	MEK (Methyl Ethyl Ketone)	1
Formaldehyde, 37%	3	Methanol	1

Methylene Chloride	NR	Sodium Hypochlorite (Bleach), 10%	1
MIBK (Methyl Isobutyl Ketone)	1	Sodium Hypochlorite (Bleach), 30%.....	2
Mineral Oil.....	1	Sodium Persulfate	
Motor Oil, SAE 30	1	(Bleaching and Oxidizing Agent)	3
Mineral Spirits	1	Sulfuric Acid, 37% (Battery Acid).....	2
Mustard, Yellow	1	Tannic Acid, 20%.....	3
Nitric Acid, 30%	NR	Tartaric Acid, 10%	1
Oleic Acid	1	Transmission Fluid	1
Oxalic Acid, 10%.....	1	Urine, Dog or Cat	1
Phosphoric Acid, 20%	2	Urea (Nitrogen-Rich Fertilizer)	1
Potassium Hydroxide, 30%		Vinegar, Distilled.....	1
(Alkaline Batteries, Soap Manufacturing).....	1	Water (Hard Water from Well)	1
Propylene Glycol	1	Whisky	1
Silver Nitrate, 20% (Photo Labs)	3	Wine, Cabernet Sauvignon.....	1
Sodium Chloride, 20%.....	1	Xylene	1
Sodium Hydroxide (Caustic Soda), 50%	1		

DISCLAIMER: The information contained in this document is intended for use by KRETUS®-qualified and -trained professionals. This is not a legally binding document and does not release the specifier from their responsibility to apply materials correctly under the specific conditions of the construction site and the intended results of the construction process. The most current valid standards for testing and installation, acknowledged rules of technology, as well as KRETUS® technical guidelines must be adhered to at all times. The steps given in this document and other mentioned documents are critical to the success of your project.