POLYUREA

Controlled Performance for Demanding Installs

POLYUREA is a 2-component base coat system for quick turnarounds for chip, sand and broadcast flooring. It works best at low temperatures in areas with low relative humidity. At full cure, this system withstands extreme temperatures from 0 to 200°F.

ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Antibacterial
- Fast Cure
- Low Maintenance
- Scratch Resistance
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Base Coat
- Cap Coat
- Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

KRETUS® SYSTEMS

- Color Chip
- Industrial Sand
- Waterproof Decking

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

FINISH AND COLOR

- Pigmented – Light gray and beige (see Color Charts at kretus.com/color-charts)

PRECAUTIONS AND LIMITATIONS

- Prime Coat: A prime coat may be required if 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.
- DO NOT apply single coat greater than 16 mils thick (100 square feet per gallon).
- DO NOT let material puddle on floor. This may cause white spots to appear when coating cures.
- Application temperatures: For best results, apply when application temperatures and relative humidity are low. Material cures faster as temperature and humidity increase and cures slower as they decrease. If application temperatures exceed 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. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- Complete samples and onsite mockups to ensure desired results are achieved.
- 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.

COMPONENTS

Standard Kit

- Part A: Polyurea, 2 gal
- Part B: Polyurea B, 1 gal

Bulk Kit

- Part A: Polyurea, 2x 5 gal
- Part B: Polyurea B, 5 gal

Larger kits 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	50-75°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	<75°F, <50% RH (Relative Humidity)

Average Application Time

Ambient Temperature	<90°F, <70% RH	75°F, 50 % RH	50°F, 50% RH
Working Time	NR	15 min	25 min
Recoat Window	NR	1-12 hrs.	2-12 hrs.
Return to Service (Foot Traffic)	NR	24 hrs.	24 hrs.
Full Cure (Vehicle Traffic)	NR	3 days	3 days

SURFACE PREPARATION

Before installing any coating, the substrate must be sound, meaning all necessary concrete repairs have been completed. It must be clean, dry, and free of any contaminates, 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 concrete surface profile. Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Standard Kit Mix Ratio	A:B = 2 gal:1 gal
Viscosity Reducer	Up to 1 qt. per standard kit
Mixing Drill	high-RPM, high-torque drill with Jiffy double-bladed mixer
Mixing Directions	Mix Part A until color and consistency are uniform. Add Part B and mix for 2 minutes or until color and consistency are uniform.

Mixing Directions With Viscosity Reducer	Mix Part A and Part B for 1 minute or until color and consistency are uniform. Add additive and mix for 1 minute or until color and consistency are uniform.

Coverage Rates

Application	Coverage Rate
Base Coat, 8-12 mils	150 sf/gal
Base coat with sand broadcast, 16 mils	100 sf/gal
Broadcast System Cap Coat Over 30-Mesh Industrial Sand	90 sf/gal

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. For more applications and coverage rates, see KRETUS® General Overview (kretus.com/product-general-overviews).

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	50 mg loss
Adhesion Strength	ASTM D4541	400 psi, 100% Concrete failure
Flexibility/ Mandrel Bend	ASTM D522	Passes 1/8-in.
Elongation	ASTM D648	50%
Impact Resistance	ASTM D2794	120 in-lbs
Indoor Air Quality	CA 01350	Compliant
Tensile Elongation at Break	ASTM D2370	50%
Tensile Strength	ASTM D638	1,650 psi
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
Acetic Acid, 30% 2
Acetone ..... NR
Ammonia, 30% 1
Ammonium Hydroxide, 30% 1
Antifreeze (Coolant) 1
Benzene (Component of Crude Oil) 3
Benzyl Alcohol 3
Betadine, 11% ..... NR
Boric Acid, 4% 1
Brake Fluid, DOT 3 1
Chromic Acid, 10% 3
Chromic Acid, 30% 3
Citric Acid, 30% 1
Ethanol, 95% ..... NR
Ethyl Acetate, 99% (Food/Beverage Facility) ..... NR
Formaldehyde, 37% 3
Premium Gasoline 1
Hydraulic Fluids (Machinery, Automobile, Aviation) 2
Hydrochloric Acid, 10% 3
Hydrochloric Acid, 30% 3
Hydrofluoric Acid, 10% 1
Hydrofluoric Acid, 30% 3
Hydrogen Peroxide, 10% ..... NR
Hydrogen Peroxide, 50% ..... NR
Iodine, 2% 3
Isopropyl Alcohol 3

Jet Fuel	1
Lactic Acid, 30% (Dairy Facility)	NR
Lime Juice	2
Magnesium Hydroxide	1
MEK (Methyl Ethyl Ketone)	NR
Methanol	NR
Methylene Chloride	NR
MIBK (Methyl Isobutyl Ketone)	NR
Mineral Oil	1
Motor Oil, SAE 30	1
Mineral Spirits	NR
Mustard, Yellow	2
Nitric Acid, 30%	NR
Oleic Acid	1
Oxalic Acid, 10%	1
Phosphoric Acid, 20%	3
Potassium Hydroxide, 30% (Alkaline Batteries, Soap Manufacturing)	1
Propylene Glycol	1
Silver Nitrate, 20% (Photo Labs)	3
Hydraulic Fluid (Aviation), Skydrol LD-4	2
Sodium Chloride, 20%	1
Sodium Hydroxide (Caustic Soda), 50%	1
Sodium Hypochlorite (Bleach), 10%	2
Sodium Hypochlorite (Bleach), 30%	3
Sodium Persulfate (Bleaching and Oxidizing Agent)	3
Sulfuric Acid, 37% (Battery Acid)	NR
Tannic Acid, 20%	3
Tartaric Acid, 10%	1
Transmission Fluid	1
Urine, Dog or Cat	1
Urea (Nitrogen-Rich Fertilizer)	1
Vinegar, Distilled	1
Water (Hard Water from Well)	1
Whisky	1
Wine, Cabernet Sauvignon	2
Xylene	3

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.

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 always be adhered to. The steps given in this document and other mentioned documents are critical to the success of your project.