



**HIGH PERFORMANCE COATING
2-PART WATER BASE URETHANE**

GUIDE SPECIFICATION

SECTION 09850

CHEMICAL RESISTANT COATINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provisions of general, supplementary conditions, and Division 1 apply to all work in this Section.
- B. Furnish labor, materials, equipment, and supervision to install chemical resistant coatings as specified and shown in drawings.

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM D4060: Abrasion Resistance < 20 mg>
 - 2. ASTM D3363: Pencil Hardness 4H
 - 3. ASTM D2794: Impact Resistance 20 in. lbs.
 - 4. ASTM D2047: Slip Resistance Passed.
 - 5. ASTM D1308: Chemical Resistance 24 hr. Exp.
- B. U.S. Department of Agriculture (USDA)

1.04 SUBMITTALS

- A. Comply with Bidding Requirements Section 00600 Bonds and Certificates, and 00650 Certificates of Insurance.
- B. Manufacturer's Technical Data Guides, and application instructions.

- C. Submit laboratory tests or data that validate product compliance with compliance criteria specified.

1.05 QUALITY ASSURANCE

- A. Manufacturer qualifications: Company regularly engaged in manufacturing and marketing of products specified in this section.
- B. Contractor qualifications: Qualified to perform work specified by reason of experience or training provided by product manufacturer.
- C. Notify manufacturer's authorized representative at least 2 weeks before start of work. Schedule minimum of 3 job site inspections by Manufacturer's authorized representative, first scheduled before application of product. Application of floor coating without prior notice will not constitute acceptance by manufacturer of two-year warranty inspection procedure.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in original factory packaging bearing identification of product, manufacturer, batch number, and expiration date as applicable. Provide Material Safety Data Sheets for each product.
- B. Store product in location protected from freezing, damage, construction activity, precipitation and direct sunlight in strict accordance with manufacturer's recommendations.
- C. Condition products to approximately 55 to 70 degrees F for use in accordance with manufacturer's recommendations.
- D. Handle all products with appropriate precautions and care as stated on Material Safety Data Sheet.

1.07 PROJECT CONDITIONS

- A. Do not use products under conditions of precipitation or freezing conditions. Use appropriate measures for protection and supplementary heating or cooling to ensure proper drying and curing conditions in accordance with manufacturer's recommendations if application during inclement weather occurs.
- B. Protect all adjacent work from contamination due to mixing, handling, and application of sealants.

1.08 MOCKUP

- A. Provide mockup to include surface cleaning and preparation techniques, aesthetics, *****[color]***, *****[and slip resistance characteristics]***.****
- B. Apply mockup with specified floor coating and with other components noted.
- C. Locate where directed by Architect.
- D. Mockup may remain as part of Work if acceptable to Architect.

1.09 WARRANTY

- A. Provide manufacturer's standard pre-approved material warranty, with completion of warranty forms.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. For purpose of defining quality of materials in this Section SEAL-KRETE, DIV. COVENIENCE PRODUCTS, ST. LOUIS, MO. conforms to requirements of this specification.
- B. Substitutions
 - 1. Alternates to acceptable manufacturer will be considered only on basis of written requests. Include substantiation of product compliance as listed in section 2.02 below.

2.02 PERFORMANCE CRITERIA

- A. Seal-Krete 2 part High Performance Urethane:

1. Vertical/Horizontal:	2 part Water-Base Urethane	
2. Solids by weight:		66%±3% percent
3. Solids by volume:		64%±3% gray 55%±3% clear
4. Viscosity	ASTM D562	65-75 KU catalyzed
5. Flash point:	ASTM D93	Greater than 185° degrees F
5. Abrasion Resistance:	ASTM 4060	<20 milligrams lost
6. VOC content:	ASTM 2697	<30 grams per liter
7. Tensile Strength:	ASTM D4541	2473-2609 psi
8. USDA Compliant		

2.03 MATERIAL

- A. Clean-N-Etch: an etching solution used to clean and degrease bare concrete surfaces, and improve penetrations and adhesion of paint, stains, and coatings.
- B. Clear Grip: a durable, micronized polymeric aggregate develop for use as an anti-skid additive to floor paints and sealers.
- C. Use SEAL-KRETE PRODUCTS in all other instances and applications as recommended by manufacturer pertaining to this work to provide Owner with single source system and warranty.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect all areas involved in work to establish extent of work, access and need for protection of surrounding construction, equipment, windows and shrubbery.
- B. Protect all surroundings from primer and floor coating to include, but not be limited to, windows, walkways, drives, and landscaping.

3.02 SITE VERIFICATIONS OF CONDITIONS

- A. Conduct pre-application inspection of site verification with authorized SEAL-KRETE Representative.
- B. Ensure floors are structurally sound and fully cured 28 days minimum.
- C. Test floors for vapor drive in accordance with ASTM D4263.
- D. Evaluate atmospheric, floor, and material temperatures. Do not apply materials if temperatures are below 60 or above 85 degrees F. Evaluate relative humidity. Do not apply materials if relative humidity is below 35 or above 80 percent.
- E. Repair concrete and install joint sealants and fillers as directed by Engineer. Make all repairs in accordance with manufacturer's written instructions.

MECHANICAL SURFACE PROFILING IS PREFERRED FLOOR PREPARATION METHOD. ALL TRANSPARENT FLOOR COATINGS WILL HIGHLIGHT CONCRETE SURFACE IMPERFECTIONS. CONSIDER LESS AGGRESSIVE MECHANICAL SURFACE PREPARATION WHERE TRANSPARENT FLOOR COATINGS ARE TO BE APPLIED.

3.03 PREPARATION

- A. Mechanically profile floor to medium grit sandpaper texture to remove curing and parting compounds, and other surface hardeners and floor coatings in accordance with manufacturer's instructions.
- B. Clean floors of fat, grease, and oil not removed by mechanical means with Seal-Krete Clean-N-Etch in accordance with Manufacturer's instructions and ASTM D4258.
- C. Conduct inspection of surface preparation with authorized Seal-Krete Representative

3.04 APPLICATION

A. 2 Part High Performance Urethane:

- 1. Stir 2-Part Urethane, Component A and B separately before mixing. Combine Part A and B and mix with Jiffy mixer blade and electric drill at slow speed for 2-3 minutes in accordance with manufacturer's written instructions. Scrape side of container several times while mixing. The two parts will thicken as they are mixed. Allow to sit for 2 minutes, then reduce to desired viscosity with potable water. When desired viscosity is achieved, apply immediately (pot life: 1.5-2 hours).

Reduction with clear tap water:

Vertical surfaces: 1 pint

Horizontal surfaces: 1 pint (Grays)

Horizontal surfaces: 1 quart (Clears)

- 2. Apply by Spray or roller at *****[250-400]***** square feet per gallon to achieve *****[4-5]***** wet mils minimum or 2.4-3 dry mils Vertical surfaces. Do not over-apply. Horizontal Surfaces, apply at *****(250-400)*****square foot per gallon or (6-8 wet mils) or 3.6 – 4.8 dry mils.)

Notation: Decorative paint flakes may be added to 2 Part Urethane Gray(s) final coat.

- 2. Allow to cure minimum of 24 hours but no more than 48 hours at 75 degrees F and 50 percent relative humidity before application of finish coat*****[High Performance 2 Part Clear]*****. Lower temperature and higher relative humidity will extend drying time. Higher temperature and lower relative humidity will shorten drying time.

SEAL-KRETE® CLEAR GRIP IN WET OR OILY ENVIRONMENTS STRONGLY RECOMMENDED FOR EXTERIOR APPLICATIONS. TWO COAT APPLICATION IS REQUIRED. PRODUCT GLOSS IS SIGNIFICANTLY REDUCED BY INCORPORATION OF AGGREGATE. CLEANING AND MAINTENANCE IS MORE DIFFICULT WITH INCORPORATION OF CLEAR GRIP.

3.05 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service. Final inspection: Warranty request. Manufacturer's representative will inspect finished surface preparation, application, and finished coating and may require further preparation or application to achieve appropriate result.

3.05 CLEANING

- A. Clean tools immediately with water or a 50/50 mixture of water and Isopropyl Alcohol. Dispose of container and contents in accordance with local laws and regulations. Keep from freezing.
- B. Remove all debris related to application of floor coatings from job site in accordance with all applicable regulations for hazardous waste disposal.

END OF SECTION