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Seal-Krete Surface-Shell Cove Base

GUIDE SPECIFICATION

SECTION 09725

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provisions of general, supplementary conditions and Division 1 as defined by Construction Specifications institute (CSI) 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.

1.02 RELATED SECTIONS

- A. Section 0330000 Cast-In Place Concrete
- B. Section 0900000 Finishes

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM):

1.	Tensile Strength psi (kPa)	ASTM C 307	615 psi (4,240)
2.	Compressive Modulus psi (kPa):	ASTM C 469	1,170 (8,067)
3.	Compressive Strength @ 30 days / psi (kPa):	ASTM C 579	4,500 (31,027.5)
4.	Flexural Strength psi (kPa)	ASTM C 580	1,520 (10,480)
5.	Adhesion Strength psi (kPa)	ASTM D 4541	400 Cohesive/adhesive failure (2,758)

6.	Modulus of Elasticity psi (kPa)	ASTM C 469	1,170 (8067)
7.	Water Absorption %	ASTM C 413	<0.1
8.	Abrasion resistance, gloss, CS-17 wheel, 1000 cycles	ASTM D 4060	0.07 mg
9.	Resistance to fungi growth	ASTM G 21	Pass/Rating of one
10.	Density	ASTM G 21	18.39 lb./gal. (8.34 kg/gal)

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 a minimum of 2 job site inspections by Manufacturer's authorized representative, first to be 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. Store and transport in unopened containers at temperatures approximately 60 degrees to 73 degrees F, 15 degrees to 22.5 degrees C.
- C. When properly stored (unmixed), shelf life is:

Parts A & C:	6 months
Part B	1 year
Part D	5 years

- 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.
- B. Protect all adjacent work from contamination due to mixing, handling, and application of resurfacing material, Surface-Shell HP & HP/Q.
- C. New concrete must cure for a minimum of 28 days. All concrete must be structurally sound, dry, and free of grease, oils, coatings, dust, curing compounds and/or other contaminants. **Surface laitance must be removed.**
- D. Substrate temperature during application should be between 50° F (10° C) and 85° F (29° C).
- E. Do not apply if the relative humidity is above 85%.
- F. Do not apply directly to asphalt, or bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, aluminum, and existing coatings. For optimal performance, apply directly to concrete.
- G. SEAL-KRETE Surface-Shell systems are designed for a 2-Step application. Variation in thickness will affect the system's thermal and impact resistance.

1.08 MOCKUP

- A. Provide mockup to include surface cleaning and preparation techniques, aesthetics, color, and slip resistance characteristics when applicable.
- 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 limited material warranty, with completion of warranty forms, on a per-job basis.

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. Chemical Resistance
ASTM D 1308

72 degrees F (22 degrees C) for the following chemicals

- Hydrochloric Resistant to 35%
- Phosphoric Resistant to 50%
- Sulfuric Acid Resistant up to 30%
- Potassium hydroxide Resistant up to a 50% solution
- Acetic, formic and uric acid Resistant up to 30% solutions

- Resists fats, oil and sugars
- Resists mineral oils, diesel fuel, kerosene, and gasoline
- Resists IPA, xylene, toluene, and MEK

B. Complies with USDA guidelines for use in federally inspected meat and poultry plants in the USA.

C. Meets ADA recommendations for a slip-resistant surface.

2.03 MATERIAL

A. 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.

B. Theoretical Coverage Rate per Coat

3/8" (9.525 mm) radius

4" (101.6 mm)	20 lin. ft.(6.1 m)
6" (152.4 mm)	13 lin. ft. (4 m)
8" (203.2 mm)	10 lin. ft. (10 m)

3/16" (4.763 mm) radius

4" (101.6 mm)	40 lin. ft. (12.2 m)
6" (152.4 mm)	26.5 lin. ft. (8.1 m)
8" (203.2 mm)	20 lin. ft. (6.1 m)

2.04 PACKAGING

3 Part Kit Item #571000

Part A: 1 Gallon (.94L)
Part B: 1 Gallon (.94 L)
Part C: 24 lb (10.89 kg)

Part D: Colorant .42 lb (190 g)
Black #570001
Blue #570002
Charcoal # 570003*
Brown # 570004
Cream # 570005*
Gray #570006
Green #570007
Red #570008*
Stock Colors

APPROVED TOP COATS

Poly-Shell 7000 High Gloss or Epoxy-Shell 1000

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, etc.
- B. When used on exteriors, Surface-Shell must be sealed with pigmented Poly-Shell 7000 seal coat.

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 50 or above 90 degrees F. Evaluate relative humidity. Do not apply materials if relative humidity is below 35 or above 85 percent. Do not apply if water or ice is present.
- E. Repair concrete and install joint sealants and fillers as directed by Engineer. Make all repairs in accordance with manufacturer's written instructions.

MECHANICAL PROFILING IS THE PREFERRED FLOOR PREPARATION METHOD.

3.03 PREPARATION

The success or failure of any application depends on proper preparation of the substrate. SEAL-KRETE recommends a clean, sound substrate free of all surface contaminants.

3.04 APPLICATION

Seal-Krete Surface-Shell Systems to be installed only by trained contractors.

- 1) Cove Base should be installed prior to installation of Seal-Krete Surface-Shell HP and HP/Q. Tape out cove with duct tape or a good quality masking tape. Metal or plastic strips may be used.
- 2) Mix Part A and B in a clean 5 gallon pail, then sift in Part C (24 lb. aggregate) and add 0.42 lb of colorant while using a mechanical mixer. NOTE: The materials are supplied in pre-measured containers.
- 3) Immediately pour mixed material out of bucket, in a bead, next to the wall. With a trowel, apply material by pressing trowel upwards at an angle. Do not worry about trowel marks at this time; just get mixed material applied to wall.
- 4) Lightly mist cove trowel with xylene (in California use non-VOC equivalent solvent). This allows the trowel to smooth the surface of the cove.
- 5) Carefully remove tape and finish rough edges. Xylene will help smooth rough edges.
- 6) After SEAL-KRETE Surface-Shell Cove Base has been allowed to cure for a minimum of 4 hours at 77 degrees F (25 degrees C), then SEAL-KRETE Surface-Shell HP and HP/Q can be installed.
- 7) Apply pigmented or clear coat of SEAL-KRETE Poly-Shell 7000 or Epoxy-Shell 1000 over entire floor, including cove base to ensure uniformity.

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.

3.06 CLEANUP AND DISPOSAL

- A. Clean tools immediately with xylene (In California, use acetone). Dispose of container and contents in accordance with local laws and regulations. Observe all fire and health precautions when handling or storing solvents.
- B. Remove all debris related to application of floor coatings from job site in accordance with all applicable regulations for waste disposal.

3.07 CAUTIONS

Do not expose Seal-Krete Surface-Shell HP and HP/Q to any chemicals until fully cured (12 hours @ 70 degrees F (21 degrees C). In colder temperatures below 50 degrees F (10 degrees C), Surface-Shell HP and HP/Q may take as long as 48 hours to reach full operational strength.

3.08 MAINTENANCE

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance, and reduce any tendency to retain dirt. Seal-Krete Surface-Shell will withstand high pressure or hot water cleanings up to 2,500 psi at 180 degrees F (82 degrees C)

END OF SECTION