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# Seal-Krete High Performance Epoxy-Shell WB 50 Product Specification

## **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):

Color: Available in 16 colors

1.	Abrasion Resistance (CS-17)	ASTM D4060	7.2 mg Loss
2.	Konig Hardness	ASTM D4366	105
3.	Adhesion Strength	ASTM D4541	> 600 psi
4.	Water Vapor Transmission	ASTM E-96	.53 g/hr*m2

#### 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 3 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 in accordance with manufacturer's recommendations. Store away from food. Protect from humidity and water. Provide adequate ventilation. Keep containers tightly sealed.
- C. When properly stored, shelf life is one (1) year.
- D. Handle all products with appropriate precautions and care as stated on Material Safety Data Sheet.
- E. Causes serious eye irritation. Causes skin irritation and may cause an allergic skin reaction. Toxic to aquatic life with long-lasting effects.

# 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.

- C. New concrete must cure for a minimum of 30 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° and 95° F

Rising moisture vapor emission rate must not exceed 31 lbs per 1000 sqft per gallon over 24 hr. period as measured by Calcium Chloride Test Method ASTM F-1869

#### 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 perjob 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. Seal-Krete Epoxy-Shell WB 50

## **Epoxy Material Properties at 75°F**

Mix Ratio (A:B by volume) 3:1
Gel Time (minutes) 35-45
Working/Broadcast Time 1 hour

Mixed VOC Content <50 g/L\*

Tack Free Time 2 hours Recoat Time:

Minimum 2 – 4 hours Maximum 24 hours

Light Foot Traffic 18 hours Vehicular Traffic 48 hours

Vertical/Horizontal: Epoxy-Shell WB 50

Mixed Solids by weight:
 Mixed Solids by volume:
 52.75 percent

## \*EPA Method 24 - Floor Category

#### 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.

#### **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 etching 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 30 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 95 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.

#### 3.03 PREPARATION

The preferred method of surface preparation is abrasive blasting or scarification using diamond heads, achieving a final 80-120 grit finish (Ref: Profile SP-2 ICRI Technical Guideline No. 03732. If chemical etch is preferred, use Seal-Krete® Clean-N-Etch Full strength. Read and follow all guidelines on product label.

If patching is required, use SEAL-KRETE Fast Cure High Strength Concrete Repair.

- A. New concrete should be allowed to cure for a minimum of 30 days. Existing concrete should be structurally sound, dry and free of grease, oils, dust, curing compounds and other coatings or contaminants. Surface laitance must be removed.
- 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. Rising moisture vapor emission rate must not exceed 3 lbs per 1000 s.f. over a 24 hour period as measured by calcium chloride test method ASTM F-1869.
- D. Conduct inspection of surface preparation with authorized Seal-Krete Representative

#### 3.04 APPLICATION

Seal-Krete Epoxy-Shell WB 50 to be installed only by qualified contractors.

## **Mixing Instructions**

1) First/Primer Coat Epoxy-Shell WB 50 (Mix Ratio 3:1) Coverage Rate 250 sq. ft./gal

Mix Part A by using a low speed drill with mixing attachment for 2 minutes.

Add one part by volume of Seal-Krete Epoxy Shell WB 50 Part B with three parts by volume of Part A. Mix using the low speed drill and mixing attachment for an additional 2 minutes. To insure proper cure, ratio recommendations must be followed precisely.

For slip resistance add Seal-Krete Clear Grip, following the instructions on the Clear Grip package.

NOTE: Mix only that amount of material that can be applied based on pot life (approximately 45 minutes), depending on surface temperature. Do not aerate during the mixing process.

Apply immediately using a 3/8" short nap roller.

If using as a primer, only 1 coat is required.

For all other applications, 2 coats are recommended with a minimum of 4 hours (2 hours with spiked shoes) and a maximum of 24 hours between coats.

2) Second Coat Epoxy-Shell WB 50 (Mix Ratio 3:1) Coverage Rate 400 sq. ft.

Mix Epoxy-Shell WB 50 as instructed in 1 above.

Apply at a spread rate of 400 sq. ft. per gallon with a 3/8" short nap roller.

Refer to Application Guide or visit hp.seal-krete.com for detailed application instructions.

## 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 after use with soap and warm water. Dispose of container and contents in accordance with local laws and regulations. Observe all fire and heath precautions when handling or storing solvents.
- B. Clean spills or drips while still wet with soap and warm water.
- C. For large spills, collect with an absorbent material and dispose of by complying with current local, state and federal laws.
- D. Remove all debris related to application of floor coatings from job site in accordance with all applicable regulations for hazardous waste disposal.

#### 3.07 LIMITATIONS

Epoxy-Shell WB 50 is not designed for immersion or any use where moisture can reach the underside of the coating. Do not apply to floors that have been treated with curing compounds (unless completely removed) or substrates that are less than 30 days old. Do not use on vinyl, asphalt, glazed tile, paving brick, quarry tile, Mexican tile or similar materials. Do not apply if surface temperature is below 50 degrees F.

## 3.08 CAUTIONS

Can cause serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. For more information refer to Safety Data Sheet.

#### 3.08 MAINTENANCE

SEAL-KRETE Industrial Flooring Systems are monolithic, making them easier to clean as dirt and other contaminants remain on the surface. For maintenance and care recommendations, refer to application guide or visit hp.seal-krete.com.