

| | |
|--|---|
| 5. Adhesion (ACI 503R) | 750 psi |
| 6. Flammability | Self-Extinguishing over concrete |
| 7. ASTM C 884 Thermal Cycling | No Cracking (24 hours @ -21°C to 25 °C) |
| 8. Mixed VOC Content | <50 g/L* |
| Mixed Viscosity CPS) | 830cps @ 50 RPM |
| 9. Mix Ratio 1.4:1.0 (by volume) | 7 oz. Part A to 5 oz. Part B |
| 10. ASTM C-722- Monolithic Surfacing | Pass |
| 11. ASTM D 522 Mandrel Bend | Pass |
| 12. ASTM D 4060 Abrasion Resistance (CS-17) | 0.6 mg |
| 13. ASTM D 4366 Konig Hardness | 132 |

***EPA Method 24 – Floor Category**

1.04 SUBMITTALS

- A. Comply with Bidding Requirements Section 00600 Bonds and Certificates, and 00650 Certificates of Insurance.
- B. Manufacturer's Technical Data Guide 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. 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. Do not breathe mixed product vapors or dust. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Before beginning to paint, put on the appropriate PPE. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapors or dust.

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 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 -20° and 130° F
- E. 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]*****.
- 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. Seal-Krete Poly-Shell 1000

Poly-Shell Material Properties at 75°F

| | |
|-----------------------|--------------|
| Mix Ratio (by volume) | 1.41 : 1.0 |
| Gel Time (minutes) | 363 minutes |
| Tack Free Time | 8 – 10 hours |

| | |
|---------------------|---------------|
| Recoat Time | |
| Minimum Recoat Time | 10 - 12 hours |
| Maximum Recoat Time | 24 hours |

| | |
|--------------------|----------|
| Light Foot Traffic | 24 hours |
| Vehicular Traffic | 72 hours |

| | | |
|---------------------------------|------------|--------------------------------|
| 1. Vertical/Horizontal: | Poly-Shell | |
| 2. Solids by weight: | | 100 percent |
| 3. Solids by volume: | | 100 percent |
| 4. Water Absorption (24 hours): | ASTM D570 | <0.5% |
| 5. Flammability: | ASTM D635 | Self-Extinguishing |
| 6. Compressive Strength: | ASTM D695 | 24hrs 6700psi 7days 7950psi |
| 7. Adhesion Strength | ASTM D4541 | 600 psi |
| 8. Tensile Strength psi | ASTM D2240 | 4500-5200 psi |
| Tensile Elongation: | ASTM D638 | 25% – 30% |

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, shrubbery, etc.
- B. Protect all surroundings areas from sand-blasting/scarification process to include, but not be limited to, windows, substrates not to be blasted, and any landscaping.

3.02 SITE VERIFICATIONS OF CONDITIONS

- A. Conduct pre-application inspection of site verification with authorized SEAL-KRETE Representative.
- B. Ensure concrete is structurally sound and fully cured (28 days minimum).
- B. 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 -20 or above 130 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. Use Seal-Krete Fast Cure to make repairs to surface breaks or cracks.

3.03 PREPARATION

New concrete must be allowed to cure a minimum of 28 days. All concrete must be structurally sound.

- A. The preferred method of surface preparation is abrasive blasting or scarification using diamond heads, achieving a final 50 – 120 grit finish (Ref: Profile SP-2 ICRI Technical Guideline No. 03732).
- B. Once the concrete preparation process is complete, clean floors of any grease or oils not removed by mechanical means (if applicable) with Seal-Krete Clean-N-Etch in accordance with Manufacturer's instructions and ASTM D4258. Surface laitance must be removed.
- C. If patching is required, SEAL-KRETE Fast Cure High Strength Concrete Repair is recommended.
- D. 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.
- E. Conduct inspection of surface preparation with authorized Seal-Krete Representative.

3.04 APPLICATION

Seal-Krete Poly Shell 1000

NOTE: When Poly-Shell Colorant is specified, colorant MUST be added first to Poly-Shell Part A prior to mixing with the catalyst, Poly-Shell Part B following the instructions below.

Mixing Instructions

- 1.) Poly-Shell 1000 First/Primer Coat (Mix Ratio 1.41 : 1.0... or ...7 ounces Part A to 5 ounces Part B) Coverage Rate 150 sq.ft./gal

Mix Part A with a low speed drill motor and mixing attachment for 3 minutes. Mix Part A with Part B and continue to mix for 3 minutes. Do not aerate the mix. To insure proper cure, ratio recommendations must be followed precisely.

Seal-Krete Poly-Shell 1000 can be applied using a notched squeegee or short nap lint-free mohair roller.

Apply first coat application at 150 sq. ft. per gallon.

- 2.) Poly-Shell 1000 Second Coat Application (Mix Ratio 1.41 : 1.0... or ...7 ounces Part A to 5 ounces Part B) Coverage Rate 200 sq.ft./gal

Follow mixing instructions in 1 above.

When adding colorant, see NOTE above prior to mixing.

Apply second coat application at 200 sq.ft. per gallon.

Allow to cure a minimum of 24 hours prior to subjecting to light foot traffic, 72 hours for vehicular traffic.

Important: Poly-Shell materials will appear to be cure and dry to touch prior to full chemical cross linking. For best results, allow system to cure 2 – 3 days prior to exposing to water or other chemicals.

For detailed application instructions, refer to Application Guide or visit hp.seal-krete.com

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 an active solvent like xylene (in SCAQMD use Acetone only).
- B. Clean spills while still wet with solvent. Dried Seal-Krete Poly-Shell 1000 will require mechanical abrasion for removal.
- C. DO NOT USE any cleaner that contains alcohol, such as IPA or Lacquer thinner blends, to clean equipment or tools.
- D. Collect spilled product with absorbent material. Dispose of in accordance with current local, state and federal regulations.
- E. Remove all debris related to application of floor coatings from job site in accordance with all applicable regulations for hazardous waste disposal.

3.07 CAUTIONS:

Do not aerate during mixing. Do not mix or apply unless surface, air and material temperatures are -20 to 130°F. Lower temperatures will slow cure time. Do not apply if water or ice is present. Do not store Seal-Krete Poly-Shell 1000 at temperatures below 40°F. Cure new concrete 28 days before application. If slab is on grade and does not have a heavy, uninterrupted vapor barrier, use SEAL-KRETE Vapor-Shell. Do not apply Seal-Krete Poly-Shell 1000 if the floor is subject to moisture vapor drive or Hydrostatic pressure, as referred to in Section 3.03 D.

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.

END OF SECTION