



SEAL KRETE® HIGH PERFORMANCE SURFACE-SHELL™ HF

DESCRIPTION AND USES

SEAL-KRETE® Surface-Shell™ HF is a heavy duty trowel applied, chemical resistant, antimicrobial treated cementitious urethane seamless flooring system. Surface-Shell™ HF is supplied with Polygiene® anti-microbial additive.

The Surface-Shell HF product is typically installed by factory trained contractors. Be sure you are fully aware of all application procedures and have all the required equipment available prior to beginning the installation of this product.

FEATURES AND BENEFITS

- VOC <10 g/l, SCAQMD Approved
- Contains a silver ion antimicrobial additive to protect the surface
- Positively textured profile to minimize slip risks in wet or damp areas
- Resistant to temperatures of up to 250°F and suitable for steam cleaning
- Unaffected by moisture vapor transmission
- Rapid Return to Service in 24 hours
- Highly Chemical Resistant
- This coating complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities

PRODUCT

DESCRIPTION	SKU
Surface-Shell HF 24 Sq.Ft. Kit	SK574000

Kit Contents:

Part A - Base (.60 Gal.), Part B - Hardener (.50 Gal.) and Part C - Filler (55 Pounds)

COMPANION PRODUCTS

DESCRIPTION (Pigment Pack)	SKU
Surface-Shell Dark Grey	SK570003
Surface-Shell Grey	SK570006
Surface-Shell Green	SK570007
Surface-Shell Red	SK570008
Surface-Shell Cream	SK570010
Surface-Shell Custom	SK570099

NOTE: Pigment Pack sold separately.

RECOMMENDED TOPCOATS

- SealKrete HP Poly-Shell 7000
- SealKrete HP Poly-Shell 8000
- SealKrete HP Epoxy-Shell 1000 EPL

PRODUCT APPLICATION

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

SURFACE PREPARATION

NEW CONCRETE: New concrete should be allowed to cure for a minimum of 28 days. The concrete must be structurally sound, dry, and free of grease, oils, dust, curing compounds and other coatings or contaminants. Surface laitance must be removed. Rising moisture vapor emission rate must not exceed 3 lb. per 1000 sq. ft. over a 24 hour period as measured by calcium chloride test method ASTM F-1869. The preferred method of surface preparation is to mechanically abrade the floor by diamond grinding to achieve a final 60-80 grit finish, reference profile CSP-5 according to ICRI. If patching is required, use SEAL-KRETE Fast Cure High Strength Concrete Repair.

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding or sweep blasting to create a surface profile. The Surface-Shell HF is compatible with most coatings, but a test patch is suggested.

NOTE: Concrete should have a minimum of 3,000 psi compressive strength. Concrete must be visibly dry at time of application.

MIXING EQUIPMENT

Low speed drill and 3" Jiffler Mixer or Hanson Plunge Mixer.

Important: Hand mixing will produce inconsistent results and is not an approved method.

MIXING

Thoroughly mix each component separately before combining. Pour the base (Part A) and hardener (Part B) components together in a clean, dry 5-gallon (18.93 L) container and power mix using a 3" (7.6 cm) Jiffler Mixer or Hanson Plunge Mixer. While mixing, slowly add filler (Part C) and Pigment Pack (Part D) and continue to mix until uniform color is achieved.

DO NOT THIN



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PRODUCT APPLICATION (cont.)

APPLICATION EQUIPMENT

Screed Box
Hand trowel

APPLICATION

Immediately after mixing, spread the Surface-Shell HF using a controlled clearance screed box, overlapping paths. Use a steel hand trowel to level screed lines and create an even surface. Lightly roll the surface using a 1/4" nap roller immediately after troweling. Do not continue to roll the surface if the material has been on the floor for more than 8 minutes. Late or heavy rolling may induce pinholes or cause problems with the finish texture and appearance.

CLEAN UP

Applicators and equipment should be cleaned immediately after use with an active solvent like xylene (in SCAQMD, use acetone only). Clean spills or drips while still wet with solvent. Dried Surface-Shell HF will require mechanical abrasion for removal.

PERFORMANCE CHARACTERISTICS

COMPRESSIVE STRENGTH

METHOD: ASTM C579
RESULT: 8,000 psi (55 MPa)

TENSILE STRENGTH

METHOD: ASTM C307
RESULT: 1,400 psi (10 MPa)

BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541
RESULT: Minimum 400 psi (100% concrete failure)

FLEXURAL STRENGTH

METHOD: ASTM C580
RESULT: 2,900 psi (20 MPa)

IMPACT RESISTANCE

METHOD: at 125 mils - 160 inch-pounds (18 Nm)
RESULT: no visible damage or deterioration.

ABRASION RESISTANCE

METHOD: ASTM D4060 (CS 17 wheels, 1000 cycles)
RESULT: 5g weight loss

COEFFICIENT OF THERMAL EXPANSION

METHOD: ASTM C531
RESULT: 1.1x10⁵ in/in/F°

COEFFICIENT FRICTION

METHOD: ASTM D2047
RESULT: Exceeds ADA recommendations

TEMPERATURE RESISTANCE

METHOD: Continuous exposure
RESULT: 220°F

METHOD: Intermittent spills
RESULT: 250°F



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PHYSICAL PROPERTIES

		SURFACE-SHELL HF
Resin Type		Cementitious Urethane
Pigment Type		Varies depending on color
Weight	Per Gallon	8.4-10.2 lbs.
	Per Liter	1.0-1.2 kg
Solids	By Weight	100%
	By Volume	100%
Volatile Organic Compounds		<10 g/l
Recommended Dry Film Thickness (DFT) Per Coat		250 mils
Practical Coverage		24 sq.ft./per kit
Mixing Ratio		1 Part A : 1 Part B : 1 Part Filler
Pot Life @ 77°F (25°C) and 50% Relative Humidity		20-25 minutes
Re-Coat Window (Min./Max)		12 hours/24 hours
Dry Times at 77°F (25°C) and 50% Relative Humidity	Foot Traffic	6-8 hours
	Vehicle Traffic	12-16 hours
	Full Cure*	3-5 days
Dry Heat Resistance		250°F (121°C)
Shelf Life		2 years
Flash Point		>350°F (>176°C)
Safety Information		For additional information, see SDS

*Coating achieves its full physical and chemical resistant properties.
 Calculated values are shown and may vary from the actual manufactured material.

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