

# H&C® SHIELD-CRETE® XL HIGH PERFORMANCE GARAGE FLOOR COATING



**Part A Epoxy**  
**Part B Hardener**  
**Part B Fast set Hardener**

## PRODUCT DESCRIPTION

**H&C® SHIELD-CRETE® XL HIGH PERFORMANCE GARAGE FLOOR COATING** is our best high performance garage floor coating with superior adhesion, excellent hot tire pickup, and tire marking protection. For professionals that want to provide their customers with the best garage flooring system. Available in Gray Taupe and Sand Taupe; offered in working/ catalyzed one gallon and 5 gallon mixes.

## FEATURES & BENEFITS

- Extremely durable surface and maximum adhesion for long lasting performance
- Resists hot tire pickup and superior tire marking protection to maintain a showroom appearance
- High-Gloss epoxy with showroom quality appearance
- Abrasion and chemical resistant for long-lasting beauty and protection
- Suitable for USDA inspected facilities

## RECOMMENDED USES

H&C® SHIELD-CRETE XL® can be used on commercial, industrial and residential concrete flooring. Because it is extremely hard wearing, the product is especially well-suited for applications such as garage floors, basement floors, warehouses and commercial floors. For maximum protection apply H&C™ CLEARPROTECT™ Water-Based 2-Part Polyurethane Clear Topcoat as a topcoat option.

## PRODUCT INFORMATION

<b>Finish:</b>	Gloss
<b>Color:</b>	Sand Taupe, Gray Taupe
<b>Volume Solids:</b>	98% +- 2%, mixed
<b>VOC (EPA Method):</b>	100 g/l; 0.83 lb/gal, mixed
<b>Mix Ratio:</b>	2 component premeasured
<b>Shelf Life:</b>	18 months unopened Store indoors at 40°F/4.5°C - 100°F/38°
<b>Flash Point:</b>	C 200°F/93°C, PMCC,
<b>Reducer:</b>	Mixed Not Recommended
<b>Clean Up:</b>	Reducer #54, R7K54

## COVERAGE RATES

Spread Rate based on wet/dry Mills		
	Minimum	Maximum
Wet mils	10mils – 160 sqft	30mils – 50 sqft
Dry mils	10mils – 160 sqft	30mils – 50 sqft
Coverage sqft/gal	160 sqft	50 sqft

10mils= 250 microns

30mils = 750 microns

## DRYING AND CURE TIMES

Drying Times at 10 MILS (250 microns) wet			
Shield-Crete XL HP Hardener Part B – 50% Relative Humidity			
	55°F/13°C	72°F/22°C	95°F/35°C
<b>To Touch</b>	16hrs-24hrs	6hrs-12hrs	4hrs-8hrs
<b>Recoat</b>			
Minimum	36hrs	8hrs	6hrs
Maximum	72hrs	72hrs	72hrs
<b>Foot Traffic</b>	48hrs	24hrs	18hrs
<b>Heavy Traffic</b>	96hrs	72hrs	60hrs
<b>To Cure</b>	7 days	7 days	7 days
<b>Pot life</b>	60 minutes	40 minutes	20 minutes
<b>Sweat-in-Time</b>	None	None	None

Abrade surface if recoating after 72 hours

Drying time depends upon temperature, humidity and film thickness. Any variability in those factors can impact drying time.

Drying Times at 10 MILS wet	
Shield-Crete XL HP Fast Set Hardener Part B – 50% Relative Humidity	
	72°F/22°C
<b>To Touch</b>	4hrs
<b>Recoat</b>	
Minimum	8hrs
Maximum	72hrs
<b>Foot Traffic</b>	10hrs-12hrs
<b>Heavy Traffic</b>	24-48hrs
<b>To Cure</b>	7 days
<b>Pot life</b>	25 minutes
<b>Sweat-in-Time</b>	None

Abrade surface if recoating after 72 hours

Drying time depends upon temperature, humidity and film thickness. Any variability in those factors can impact drying time.

## PHYSICAL PROPERTIES

Physical Properties and Characteristics		
Test	Test Method	Value
Static Coefficient of Friction	ASTM D2047	With SharkGrip: .55 Without SharkGrip: .49
Abrasion Resistance	ASTM D4060, CS17 wheel, 1,000 cycles	100 mg loss
Surface Burning	ASTME84/NFPA 255	Flame Spread Index 20; Smoke Development Index 35
Flexural Strength	ASTM D790	~12,400 psi
Tensile Strength	ASTM D 638	~6000 psi
Impact Resistance	MIL-D 3134J	Direct, inch pound greater than 160 passes. Reverse, inch pound greater than 80 passes
Hardness, Shore D	ASTM D 240	75
Impact Resistance	Mil-D-3134J	Direct: >160 in lb; Indirect: >80 in lb
Nuclear Decontamination*	ASTM D4256/ANSI N 5.12	99.7% Water Wash; 98% Overall
Radiation Tolerance*	ASTM D4082/ANSI 5.12	Pass at 30 mils (750 microns)

\*Substrate concrete are temperature, humidity and film-thickness dependent.

### LIMITATIONS

Do not apply H&C® SHIELD-CRETE® to outdoor surfaces exposed to direct sunlight. UV exposure may cause the color to fade over time. WARNING surface can become slippery when wet. To reduce the risk of slippage please add H&C® SHARKGRIP® SLIP-RESISTANT ADDITIVE for additional protection.

### RATIO AND AMOUNTS

Ratio is 1 to 2

1 Part B hardener mixed with 2 Parts A Epoxy

For a 5 gallon mix                      For a 1 gallon mix

Part A consists of 3.33 gal              Part A consists of .656 gal

Part B consists of 1.63 gal              Part B consists of .328 gal

### JOBSITE TEST SECTION

Due to the wide variety of substrates, preparation methods, application methods and environments, it is important to create a test sample.

### SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive H&C SHIELD-CRETE XL is critical. For the best adhesion, properly prepared concrete should be clean, dry and absorbent.

**For surface preparation, refer to SSPC-SP13/NACE 6 or ICRI No.310.2, CSP 1-3.**

**Bare Concrete:** Before applying product to new concrete, allow to cure for 28 days at 75°F/24°C. Remove all loose mortar and foreign material. All concrete should be clean and free of grease, oil, laitance, concrete dust, release agents, moisture curing membranes, loose cement, hardeners, mildew and

paint.\* To spot clean, use H&C® CONCRETEREADY® Cleaner Degreaser, following label directions. Rinse thoroughly and allow to dry. If mold, mildew or fungus is present, kill and remove by cleaning with a solution of 1 cup household bleach to 1 gallon of water. All concrete surfaces must be etched first with H&C CONCRETEREADY Etching Solution or muriatic acid, following label directions. Properly etched concrete should have the feel of 120-grit sandpaper and absorb water rapidly. To test, place a dime-size amount of water onto various areas of the slab to be coated. The water should absorb into and darken the concrete in 10 to 15 seconds. If the water does not absorb, then additional surface preparation methods should be done, such as mechanical grinding or shotblasting. Prepared concrete should have a pH level of 6 to 10.

**\*WARNING:** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. To avoid exposure to lead dust, wear proper protective equipment, such as a properly fitted respirator (NIOSH approved) and follow proper containment and cleanup procedures. For more information, call the National Lead Information Center at 1-800-424-LEAD (in U.S.) or contact your local health authority.

**Previously Painted Surfaces:** It is not recommended to apply H&C SHIELD-CRETE over an existing or previously coated surface. If in sound condition, clean surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply H&C SHIELD-CRETE XL to a test area, allowing it to dry one week before testing adhesion. Test adhesion in accordance with ASTM D 3359, standard test methods for measuring adhesion by tape test. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest for adhesion. If the coating is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

### APPLICATION CONDITIONS

**Temperature:**

50°F/13°C minimum  
90°F/35°C maximum for air, surface, and material\*  
\*at least 5°F/2.8°C above dew point 85% Maximum

**Relative Humidity:**

### TOOLS REQUIRED

- Synthetic brush – for cut-in around edges
- 3/8in to 1/2in Woven solvent-resistant core roller
- Spiked or Loop Roller – recommended to prevent outgassing
- Spiked shoes
- Squeegee – Acceptable
- Trowel – Acceptable
- Mixing blade and variable-speed drill
- Eye Protection
- Respiratory Protection
- Gloves

## **APPLICATION INSTRUCTIONS**

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**Surface preparation must be completed as indicated in previous section.**

**Mixing:** To mix 1 gallon unit use electric or air mixer with metal mixing blade. Premix Component A and B separately for 1-2 minutes, then pour the Part B hardener contents into a slack fill resin can containing Part A. Mix for 2 to 3 minutes, moving blade around can while mixing. Avoid whipping in air while mixing. To mix 5 gallon units use the same procedure for mixing 1 gallon units except a larger mixing blade is required.

If applying by squeegee, immediately pour entire mixture onto prepared substrate and spread with a flat rubber squeegee to the desired thickness up to 30mil. Cross roll using a 3/8in nap woven roller or equivalent. If applying by roller cover, use a 3/8-inch to 1/2-inch roller cover to apply product. Roller cover application will only achieve minimal thickness.

Cross roll using a 3/8-inch nap woven roller or equivalent. Check film thickness frequently. **Recommended after 20-30 minutes setup time, material should be rolled with a spiked roller to remove any entrapped air. Do not spike roll after 40 minutes.**

### **APPLICATION AND PERFORMANCE TIPS**

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Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build. Do not apply the material beyond the pot life. Do not mix previously catalyzed material with new. When recoating it must be done no less than 8 hours and no more than 72 hours after applying the first coat. If the recoat window has passed the surface of the material must be abraded to ensure proper adhesion.

### **CLEANUP**

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Clean mixing and application equipment immediately after use using Reducer #54, R7K54. Observe all fire and health precautions when handling solvents. Seal unused materials with labels intact and legible. Keep resins, hardeners and solvents separate from each other and away from sources of ignition.

## **MAINTENANCE**

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Clean light- to medium-soiled surfaces with a 50/50 solution of H&C CONCRETEREADY Cleaner Degreaser and water or a good-quality neutral- based cleaner/degreaser, following the manufacturer's directions for use. Use H&C CONCRETEREADY Cleaner Degreaser full strength for heavily soiled areas, such as oil and grease stains.

## **ORDERING INFORMATION**

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<b>5 gallon Mix</b>	<b>Part Number/SMIS</b>
Part A (Gray Taupe)	20.105306-19/650998-966
Part A (Sand Taupe)	20.105307-19/6509-98974
Part B (Hardener)	20.105305-36/6509-98941
Part B (Fast Set)	20.105304-36/6509-98933

<b>1 Gallon Mix</b>	<b>Part Number/SMIS</b>
Part A (Gray Taupe)	20.105302-16/6509-98909
Part A (Sand Taupe)	20.105303-16/6509-98925
Part B (Hardener)	20.105301-15/6509-98891

## **CAUTION**

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**VAPOR HARMFUL.** Use only with adequate ventilation. Contains epoxy resin and volatile organic compounds. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, wear respiratory protection (NIOSH/ MSHA TC23C or equivalent) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

**FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed do not induce vomiting. Get medical attention immediately. **DELAYED EFFECTS FROM LONG-TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

### **LIMITED WARRANTY**

Seller's and manufacturers only obligations shall be to replace such quantity of product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising from the applicator's inability to use the product for his/her intended use. The user assumes all risk and liability.

### **TECHNICAL SERVICES**

The information and recommendations set forth in this product data sheet are based on tests conducted by or on behalf of H&C Products Group and The Sherwin-Williams® Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your H&C or Sherwin-Williams representative to obtain the most recent product data sheet.

For technical assistance, call 1-800-867-8246 or visit [www.hcconcrete.com](http://www.hcconcrete.com).