



**8600 SYSTEM**

**OVERKRETE® 45/65 S**

**LOW TEMPERATURE EPOXY FLOOR COATING – SMOOTH**

**DESCRIPTION AND USES**

OverKrete® 45/65 S is a floor coating applied at a thickness of 16 to 50 mils. It is designed for use in severe chemical environments and can tolerate constant rubber wheel traffic. This coating can be used as a 45-50 mil anti-skid textured surface, a 16 mil smooth finish, or a glaze coat over a heavy duty topping.

For vertical surfaces, use OverKrete 45/65 V.

**FEATURES AND BENEFITS**

- High resistance to acids, alkalis and solvents. The Corrosion Resistance Chart in the Heavy-Duty Concrete Flooring Solutions Guide lists a variety of chemicals and expected performance with each.
- OverKrete 45/65 S can be applied to properly mixed and placed new concrete that has cured for a minimum of 10 days at 70°F. The bond strength of the OverKrete 45/65 S to the concrete will exceed the tensile and shear strength of the concrete itself.
- OverKrete 45/65 S has excellent adhesion to properly prepared concrete, brick, tile and other building materials.
- OverKrete 45/65 S will cure adequately for the next coating step in 6-8 hours at 70°F.

**PACKAGING**

OverKrete 45/65 S is packaged in two kit sizes: 1 gallon and 3 gallon. Mixing ratios are shown on the product labels.

**COLORS**

8600 System OverKrete 45/65 S is available in twelve standard colors. Custom colors are available upon request. Product codes listed below are for 1-Gallon and 3-Gallon kits.

<b>1-Gal. Kit</b>	<b>3-Gal. Kit</b>	<b>Description</b>
237079	237080	Natural
237085	237086	National Blue
237089	237090	Light Green
237093	237094	Safety Yellow
237097	237098	Tile Red
237101	237102	Black
237105	237106	Dunes Tan
237109	237110	Dark Gray
237113	237114	Light Gray
237117	237118	Navy Gray
237121	237122	White
241696	241698	Super Light Gray

**TYPICAL USES**

OverKrete 45/65 S coating is used where one or more of the following properties are required:

- High wearability
- Corrosion resistance
- Anti-skid safety surfaces (when used in conjunction with a broadcasted aggregate)
- Ease of cleanability and maintenance
- Aesthetically pleasing surfaces

**TYPICAL APPLICATIONS**

- Walkways
- Warehousing
- Storage areas
- Manufacturing
- Show rooms
- Clean rooms
- Boiler plants
- Laboratories
- Animal treatment areas

**PRODUCT APPLICATION**

- Electronics industry
- Power plants
- Automotive assembly/showrooms
- Airport baggage handling and ramps
- Wineries and breweries
- Bottling/beverage industries
- Meat packing/poultry plants/dairies
- Food processing plants
- Bakeries/restaurants
- Schools/hospitals
- Pharmaceutical and chemical laboratories
- Industrial lunchrooms/dressing rooms
- Wastewater treatment plants/chemical plants

**PRODUCT APPLICATION**

**SURFACE PREPARATION**

**NEW, UNCOATED CONCRETE:** New concrete should be allowed to cure for a minimum of 30 days before application of any coating. If there is any doubt about the dryness of the concrete, conduct a test by simply placing a weighted rubber mat, plastic sheet or other non-porous material on the surface for 24 hours. Check the underside of the mat and concrete for signs of moisture. The substrate will be darker if damp. If moisture is found, allow additional drying time (10-14 days) and repeat test. If moisture persists, concrete surface cannot be coated.



## TECHNICAL DATA

### 8600 SYSTEM OVERKRETE® 45/65 S LOW TEMPERATURE EPOXY FLOOR COATING – SMOOTH

#### PRODUCT APPLICATION (cont.)

##### SURFACE PREPARATION (cont.)

Remove oil, dirt, grease and other chemical contaminants by cleaning with Industrial Pure Strength® 3599 Cleaner/Degreaser, detergent, or other suitable cleaner. Rinse with water. Etch concrete with 108 Cleaning & Etching Solution. Rinse thoroughly and immediately, and allow to dry. Very dense, non-porous or chemically treated concrete may require acid etching, abrasive blasting, grinding or sanding to assure proper coating adhesion. Determine porosity by pouring one ounce of water onto the concrete. If water soaks in, the surface is porous enough for coating. If water beads up on the concrete, the surface is not porous and treatment is warranted. The presence of laitance (fine white particles) will also require acid etching, abrasive blasting, sanding or grinding to ensure removal.

**PREVIOUSLY COATED CONCRETE:** Remove loose dirt, dust and paint by sweeping or vacuum cleaning. Remove grease, oil, floor compound or wax as indicated above, in the new, uncoated concrete section. Very glossy or hard coatings should be lightly sanded to insure maximum adhesion. OverKrete 45/65 S will not lift most previous coatings. Concrete floor areas which require patching should be free of dirt, oil, grease and other chemical contaminants as indicated above, in the new, uncoated concrete section. Loose cement and previous paint should also be removed. The 5499 Concrete Patching Compound or 5494 TurboKrete® Concrete Patching Compound can be used to repair damaged areas of the floor. Refer to the product Technical Data Sheet for more information.

##### MIXING

Hand mixing is not adequate. You must combine the base and activator by power mixing using either a 3" Jiffler Mixer or Hanson Plunge Mixer. Mix at 500-750 rpm for 1-3 minutes. Do not over mix or use higher speeds. This can introduce air into the coating causing small bubbles in the finish.

Start mixing the OverKrete 45/65 S Part A resin and immediately add the Part B activator. It is very important to transfer as much Part B activator as possible, scrape the sides and bottom of the container thoroughly. Mix the two components together for 1-3 minutes being careful to not pull air into the mixture.

Immediately pour the mixture out onto the marked off area of the floor in a long thin stripe. Do not try to work out of the container or put the material in a roller pan as heat will build up and shorten pot life and work time, and could be hazardous. The material on the floor will be workable for about 20 minutes.

**NOTE:** Do not scrape the sides or bottom of the container. Use only the material that flows naturally out of the container. Also, do not turn the container upside down and leave on the floor to drain. Doing so may result with unactivated material from the sidewall of the container being applied. This will cause soft spots in the coating.

#### PRODUCT APPLICATION (cont.)

##### EQUIPMENT RECOMMENDATIONS

**SQUEEGEE:** Use a high quality rubber squeegee.

**ROLLER:** Use a high quality short nap (¼-⅜") lint-free roller with a phenolic core such as Rust-Oleum Roller No. 6696.

##### APPLICATION

Apply only when air and floor temperatures are between 45-65°F. Because of the short pot life, it is recommended the application of the coating be limited to small sections. One activated gallon of OverKrete 45/65 S will cover 100 square feet at 16 mils. This can be achieved with a single coat application, however, on bare concrete there is a risk of outgassing from small pinholes and voids in the concrete during the curing of the coating which will form blisters in the finish.

To greatly reduce the risk of blisters we recommend that bare concrete be first primed with Prime & Seal™ Primer or Penetrating Prime & Seal™ Primer. Refer to the Technical Data Sheet for the primer for more information and application instructions.

**NOTE:** Outgassing only occurs when there is a rise in temperature causing entrapped air in pinholes to expand. The risk of blisters can also be reduced by avoiding application of the coating during times of the day where temperatures may increase.

After the primer has cured, mark off the floor into 100 square foot sections. Coating this area with one gallon of activated OverKrete 45/65 S finish will yield a film thickness of 16 mils. On previously coated floors where outgassing is not a problem, the OverKrete 45/65 S can be applied directly to the floor in a single coat application of 16 mils. Mark out the floor into 100 square foot sections for coverage with one gallon of activated material.

After pouring the material onto the floor, use a rubber squeegee to spread the material out over the entire section. Roll the material smooth using a ⅜" nap, lint free roller with a phenolic core. Make all final passes parallel and in the same direction. Do not roll excessively and do not re-roll the material after the final passes are made. Doing so may result in color variations.

**NOTE:** Change the roller cover every 30 minutes and always mount it on the roller frame in the same direction.

After completing the section repeat the process on the adjacent section, overlapping the prior application approximately 6 inches to blend the coating together. Natural breaks in the floor, such as control joints or expansion joints, should be used as stopping points if the entire floor cannot be completed in one day. The coated floor will be ready for foot traffic 10 hours after application of the final coat. The coating will be ready for full use in 48-72 hours at 70-80°F and 50% relative humidity. Do not detergent wash the floor for 5 days after application.



## TECHNICAL DATA

### 8600 SYSTEM OVERKRETE® 45/65 S LOW TEMPERATURE EPOXY FLOOR COATING – SMOOTH

#### PRODUCT APPLICATION (cont.)

##### NON-SLIP SURFACES

To obtain a non-slip surface, a two coat application is required. The same basic procedure is followed as for application of the regular high gloss finish. Apply the first coat of OverKrete 45/65 S at 16 mils, 1 activated gallon per 100 square foot section, by rubber squeegee and roller. Within 30 minutes after rolling of the first coat, broadcast silica, totally saturating the coated surface. If the floor is being coated in multiple sections, then leave a 6-12 inch area un-sanded along the edge of the section to allow for blending of the coating in the next section.

Use 50 lbs of round particle, 20-40 mesh sand (like Wedron 480) per 100 square foot section. Silica is sold separately. After 4-8 hours, sweep off the excess silica thoroughly. Apply a second coat of OverKrete 45/65 S within 10-24 hours at the same spread rate of 16 mils, or 1 gallon per 100 square feet. This second coat anchors the silica and improves the appearance while maintaining the non-slip surface. The floor will be ready for foot traffic in about 10 hours after the application of the second coat, and is ready for full use in 48-72 hours. Do not detergent wash for 5 days after application.

##### THINNING

Not required.

##### COVERAGE

Smooth finish: 16 mils (400µ)

One coat @ 100 sq. ft. /gal. (2.5 m<sup>2</sup>/l)

Anti-skid finish: Applied in two coats.\* (three steps involved), 45-50 mils (1,125-1,250µ)

1st coat is 100 sq. ft. /gal. (2.5 m<sup>2</sup>/l) (16 mils (400µ) no less)

Aggregate broadcast while wet

2nd coat\* is 100 sq. ft. /gal. (2.5 m<sup>2</sup>/l)\*\*

\*The 2nd coat anchors the aggregate.

\*\* This will vary, based on coarseness of aggregate used.

For special textures or decorative effects, consult application instructions.

#### PRODUCT APPLICATION (cont.)

##### SET TIME

Cured adequately for next coating step in 6-8 hours at 70°F (21°C).

##### CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up; otherwise, stronger solvents such as methylene chloride will be necessary.

##### SAFETY

OverKrete 45/65 S contains amine curing agents. Avoid skin contact. In case of eye contact or ingestion, contact a physician immediately. In case of skin sensitivity to these materials, use protective clothing and gloves.

##### MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets are available upon request. It is strongly recommended that they be read by all persons handling OverKrete 45/65 S.

If there are any questions on the use of this product, please consult our technical service department.

#### PERFORMANCE CHARACTERISTICS

##### COMPRESSIVE STRENGTH

METHOD: ASTM C579

TYPICAL VALUE: 7,900 psi

##### FLEXURAL STRENGTH

METHOD: ASTM C580

TYPICAL VALUE: 3,700 psi

##### TENSILE STRENGTH

METHOD: ASTM C307

TYPICAL VALUE: 3,900 psi

##### TABER ABRASION

METHOD: ASTM 4060, CS 17

TYPICAL VALUE: Loss/1,000 cycles = 30 mg.

##### FILM HARDNESS, SHORE D

METHOD: ASTM D2240

TYPICAL VALUE: 85



## TECHNICAL DATA

### 8600 SYSTEM OVERKRETE® 45/65 S LOW TEMPERATURE EPOXY FLOOR COATING – SMOOTH

#### PHYSICAL PROPERTIES

		OVERKRETE® 45/65 S
<b>Resin Type</b>		Polyamine Converted Epoxy
<b>Pigment Type</b>		Varies depending on color
<b>Solvents</b>		Furfuryl Alcohol
<b>Weight*</b>	<b>Per Gallon</b>	9.35-9.75 lbs.
	<b>Per Liter</b>	1.12-1.17 kg
<b>Solids*</b>	<b>By Weight</b>	100%
	<b>By Volume</b>	100%
<b>Volatile Organic Compounds*</b>		<155 g/l (1.29 lbs./gal.)
<b>Recommended Dry Film Thickness (DFT) Per Coat</b>		High gloss finish: 16 mils Non-slip finish: 16 mils (first coat) (with silica broadcast); 16 mils (second coat)
<b>Wet Film to Achieve DFT</b>		Approximately 16 mils per coat
<b>Practical Coverage at Recommended DFT</b>		100 sq.ft./gal. at 16 mils 32 sq. ft./gal. at 50 mils
<b>Mixing Ratio</b>		7:1 base to activator by volume
<b>Induction Period</b>		None
<b>Pot Life @ 70-80°F (21-27°C) &amp; 50% Relative Humidity</b>		30 minutes. Higher temperatures and larger quantities of activated material will significantly reduce pot life. Pour material onto floor immediately after mixing.
<b>Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity</b>	<b>Recoat</b>	10-24 hours
	<b>Light Traffic</b>	10 hours
	<b>Vehicle Traffic</b>	48-72 hours
<b>Shelf Life</b>		3 years
<b>Flash Point</b>		>196°F (91°C)
<b>Safety Information</b>		<b>CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED. MAY CAUSE ASTHMA, SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT MATERIAL SAFETY DATA SHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.</b>

\* Activated material

Calculated values are shown and may vary slightly from the actual manufactured material.

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