# **TECHNICAL DATA**

# SIERRA™ S60 WATER-BASED EPOXY MAINTENANCE COATING

# DESCRIPTION AND USES

The S60 Water-Based Epoxy Maintenance Coating is a low VOC, low HAP, two component epoxy that is suitable for use on both floors and vertical surfaces.

This water-based epoxy finish is designed for general maintenance use in a moderate industrial environment. It can be used on steel, non-ferrous, concrete, masonry, and previously coated surfaces. Since this coating is very low odor during application, it is ideal for use in schools, healthcare facilities, food service areas, office buildings, hotels or in any area where odors are an issue. The durable epoxy finish is ideal for walls, floors, and other surfaces subjected to frequent wash downs and cleaning. This coating is not suitable for continuous water immersion service. On steel surface use Sierra S70 Water-based Epoxy Primer to optimize corrosion protection.

Sierra S60 complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

# PRODUCTS

**NOTE:** Each kit contains a short filled gallon of base component (Part 2) and a short filled gallon of #248284 activator (Part 1). When combined (and tinted, if necessary) the final yield is one full gallon. Order product by kit number.

KIT NUMBER	DESCRIPTION (Gloss Finish)
248285	Stone Gray
248286	Almond
248287	OSHA Safety Red
248288	OSHA Safety Yellow
248291	OSHA Safety Blue
248289	Oyster White
248290	Black
251173	Dunes Tan
251212	Classic Gray
1 Gallon	Part 2 Base (Gloss Finish)
<b>1 Gallon</b> 248277	Part 2 Base (Gloss Finish) Stone Gray
248277	Stone Gray
248277 208076	Stone Gray Tile Red
248277 208076 248279	Stone Gray Tile Red OSHA Safety Red
248277 208076 248279 248280	Stone Gray Tile Red OSHA Safety Red OSHA Safety Yellow
248277 208076 248279 248280 248283	Stone Gray Tile Red OSHA Safety Red OSHA Safety Yellow OSHA Safety Blue
248277 208076 248279 248280 248283 248283 248281	Stone Gray Tile Red OSHA Safety Red OSHA Safety Yellow OSHA Safety Blue Oyster White

# PRODUCTS (cont.)

1 Gallon	5 Gallon Pail	Part 2 Base (Gloss Finish)	
208072	208073	Classic Gray	
208080	208081*	Almond	
248273	268554*	White Pastel Tint Base	
248274		Tint Base	
248275		Deep Tint Base	
248276		Accent Tint Base	
208066		Clear	
1 Gallon	Part 2 Base (Satin Finish)		
208090	Classic Gray		
208084	Clear		
282602	White Pastel T	int Base	
282601	Deep Tint Base		
282600	Accent Tint Base		
1 Gallon	5 Gallon Pail	Part 1 Activator	
283742		Satin	
248284	208087	Gloss	

\*Made-To-Order only. Contact Rust-Oleum Customer Service for details.

**NOTE**: Base component (Part 2) containers are short filled to allow for the addition of the Activator (Part 1), and for tint bases, addition of the colorant and the Activator.

# **COMPANION PRODUCTS**

Sierra S70 Water-based Epoxy Primer (Non-floor applications) UltraWear Anti-Slip Additive 213898

## PRODUCT APPLICATION

## SURFACE PREPARATION

ALL SURFACES: Remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Krud Kutter<sup>®</sup> Cleaner Degreaser, commercial detergent or other suitable cleaner. Mold and mildew must be cleaned with a chlorinated cleaner or bleach solution. Rinse thoroughly with fresh water and allow to fully dry. All surfaces must be dry at time of application.

STEEL: At minimum, Hand Tool (SSPC-SP-2) or Power Tool (SSPC-SP-3) clean to remove all loose rust, mill scale, and deteriorated previous coatings. If abrasive blast cleaning is done, the blast profile should not exceed 1-2 mils (25-50 $\mu$ ). Abrasive blast cleaned steel requires two coats of primer.



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# PRODUCT APPLICATION (cont.)

## SURFACE PREPARATION (cont.)

NEW, UNCOATED CONCRETE: New concrete should be allowed to cure for 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 nonporous 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.

Remove oil, dirt, grease and other contaminants by cleaning with Krud Kutter<sup>®</sup> Original Cleaner Degreaser, detergent, or other suitable cleaner. Rinse with water.

NEW and UNCOATED CONCRETE FLOORS: Etch concrete with 108 Cleaning & Etching Solution. Rinse floor thoroughly and immediately after etching with scrubbing to remove all remaining loose material. After acid etching, the concrete should have a surface profile that resembles fine grit sandpaper. If not, repeat the process. The presence of surface treatments, curing agents used in the concrete, or very dense nonporous concrete may inhibit the etching process. This may require the use of shot blasting to create surface profile for assurance of proper coating adhesion.

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding to create a surface profile

## TINTING

The S60 tint bases can be tinted with COLORTREND<sup>®</sup> PLUS<sup>™</sup> 808, COLORTREND<sup>®</sup> 888, Rust-Oleum 2030 Water-based Colorants or other high quality water-based universal colorants. Adding colorants may add VOCs. If used at the recommended levels, the VOC will not exceed 100 g/l.

## TINT BASE MAXIMUM COLORANT PER GALLON

QUANTITY	DESCRIPTION
2 Oz.	White and Satin Pastel Base
4 Oz.	Gloss Tint Base
8 Oz.	Gloss and Satin Deep Tint Base
12 Oz.	Gloss and Satin Accent Tint Base

### MIXING

Premix Part 2 base component to re-disperse settled pigment before adding Part 1 activator component. Thoroughly mix for 3-5 minutes.

## THINNING

If needed, thin with fresh water. Do not exceed 4 fl. oz./gal.

# **PRODUCT APPLICATION (cont.)**

## APPLICATION

Apply only when air and surface temperatures are between 50-100°F (10-38°C) and surface temperature is at least 5°F above dew point. Ensure fresh air entry during application and drying.

**FLOORS:** Apply by roller using a good quality 3/8" synthetic nap cover. Ensure fresh air entry during application and drying.

On new or uncoated concrete, a minimum of two coats of product should be applied. The first coat may be applied by roller, spray, or spread out using a rubber squeegee, then back roll to smooth out the finish. This coating can tolerate application to damp concrete; however, conditions must be favorable to allow the moisture to evaporate. Apply the second coat by roller. **Recoat previously coated floors by roller only.** 

Applications done at low humidity conditions (less than 15%) may result in lower initial gloss; however, this will not have any effect on coating performance. Allow coated floor to cure 7 days before mopping or washing. The dry time of the coating may be longer than published if the floor is in an area with poor air flow, has air temperatures below 70°F, or the concrete was damp prior to application.

If desired, 213898 UltraWear Anti-Slip Additive can be used to improve slip resistance. Use one bag per gallon.

### EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality synthetic bristle brush. ROLLER: Use a good quality synthetic nap roller cover.

AIR-ATOMIZED SPRAY: Method Fluid Tip Fluid Delivery Atomization Pressure

Pressure	0.055-0.070	12-16 oz./min	40-60 psi
Siphon	0.055-0.070		40-60 psi
HVLP (var.)	0.043-0.070		10 psi at tip

Air cap for highest pressure

AIRLESS SPRAY:		
Fluid Pressure	Fluid Tip	Filter Mesh
2000-3000 psi	0.013-0.017	100

## CLEAN-UP

Clean up with soap and water and dispose of all waste material in a proper manner and in accordance with local waste regulations. Consult with local environmental regulations for appropriate method of disposal and/or recycling of paint and empty container.

## **EPOXY**



# TECHNICAL DATA

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# PERFORMANCE CHARACTERISTICS

### SCRUB RESISTANCE

METHOD: ASTM D2486 RESULT: >2,000 cycles

### WASHABILITY

METHOD: ASTM D4828 RESULT: 9

### IMPACT RESISTANCE (direct)

METHOD: ASTM D2794 RESULT: 35 in. lbs.

### GLOSS AT 60°

METHOD: ASTM D523 RESULT: 80-85 Gloss Finishes 20-35 Satin Finishes

### ALKALI RESISTANCE

METHOD: ASTM D1308 RESULT: No effect

### TABER ABRASION/ABRASION RESISTANCE

METHOD: ASTM D4060, CS-17 wheels, 1000 gram load, 1000 cycles RESULT: Wear index 117, (117 mg loss)

## PERFORMANCE CHARACTERISTICS (cont.)

### APPLICABILITY

METHOD: ASTM D7073 RESULT: Passed

### PENCIL HARDNESS

METHOD: ASTM D3363 RESULT: 3H

### **QUV/EPOXY DISCOLORATION**

METHOD: ASTM G5388 (96 hours) RESULT: 1.5% gloss loss/change, very slight yellowing

### **ADHESION (concrete)**

METHOD: ASTM D7234 RESULT: >200 psi, concrete failure

### **TENSILE STRENGTH**

METHOD: ASTM D2370 RESULT: 2,755 lbs./sq. in.

### **COEFFICIENT OF FRICTION**

METHOD: ASTM F1679-04e1 RESULT: Dry: 086

For chemical and corrosion resistance, see Rust-Oleum Industrial Brands Catalog (Form #275585).

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# **TECHNICAL DATA**

# RUST-OLEUM SIERRA PERFORMANCE

# SIERRA™ S60 WATER-BASED EPOXY MAINTENANCE COATING

## PHYSICAL PROPERTIES

Resin Type		Water-based Epoxy
Pigment Type		Varies with color
Solvents		Water, Glycol Ethers
Weight** Per Gallon Per Liter	Per Gallon	9.0-12.5 lbs.
	Per Liter	1.1-1.5 kg
	By Weight	59.5%
Solids**	By Volume	50.0%
Volatile Organic Compounds**		<50 g/l
Mixing Ratio		2:1 Part 1 to Part 2 by Volume (High Gloss finish) 1:1 Part 1 to Part 2 by Volume (Satin Gloss finish)
Recommended Dry Film Thickness (DFT) Per Coat		2.0-3.0 mils (50-75μ) 3.5-5.0 mils (87.5-125μ) for color finishes <sup>†</sup> 2.0-3.0 mils (50-75μ) for clear finishes <sup>†</sup>
Wet Film to Achieve DF material)	T (unthinned	4.0-6.0 mils (100-150 $\mu$ 7-10 mils (175-250 $\mu$ ) for color finishes <sup>†</sup> 4.0-6.0 mils (100-150 $\mu$ ) for clear finishes <sup>†</sup>
Practical Coverage at Rec (assumes 15% material lo for material quantity estim	ss) Use this value	230-340 sq. ft./gal. (5.7-8.4 m²/l) 135-195 sq.ft./gal. (3.3-4.8 m²/l) for color finishes <sup>†</sup> 225-340 sq.ft./gal. (5.5-8.4 m²/l) for clear finishes <sup>†</sup>
Induction Period**		None
Pot Life @ 70-80°F		2 hours
Dry Times at 70-80°F	Recoat	1-3 hours, clear finishes must be dry to the point where the coating is free of any remaining milkiness before recoating
(21-27°C) and 50%	Foot Traffic	Light Foot Traffic: 3 hours; Normal Foot Traffic: 24 hours
Relative Humidity	Full Traffic	72 hours, full chemical resistance will take 10-14 days
Dry Heat Resistance		250°F (121°C), color may shift above 150°F (66°C)
Shelf Life		3 years for Part 1, 2 years for Part 2
Storage		PROTECT FROM FREEZING. IF PRODUCT SHOULD FREEZE, ALLOW THE MATERIAL TO WARM UP AND REMAIN AT NORMAL ROOM TEMPERATURE FOR 48 HOURS PRIOR TO USE. MIX BY HAND STIRRING.
Safety Information		For additional information, see SDS

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

\*\*Activated Material

<sup>†</sup> Floor application values

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.



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