RUST-OLEUM SIERRA PERFORMANCE™

S40 SYSTEM
WATER-BASED EPOXY FLOOR COATING

DESCRIPTION

The S40 Water-Based Epoxy Floor Coating is a zero VOC†, zero HAP††, low odor, two component, water based epoxy coating.

Designed for concrete floors in areas of light to medium vehicle traffic and where occasional spillage of mild chemicals may occur. Very low odor during application makes it ideal for use in schools, healthcare facilities, food service areas, office buildings, hotels or in any area where odors are an issue.

Sierra S40 Water-Based Epoxy Floor Coating complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

The Sierra S40 meets the Green Seal™ environmental standard for paints and coatings based on performance requirements and reduced use of hazardous substances and reduced volatile organic compounds (VOCs).

APPEARANCE

Finish colors: High gloss
Clear finish: Satin

PRODUCTS

1-Gallon	5-Gallon	Description
208557	---------	Safety Red
208068	---------	Safety Yellow
208070	---------	Black
208072	208073	Classic Gray
208074	208075	Light Gray
208076	---------	Tile Red
208078	---------	Dunes Tan
208080	208081*	Almond
208084	---------	Satin Clear
208066	---------	Clear
208060	---------	White Pastel Tint Base
208062	---------	Tint Base
208064	---------	Deep Tint Base
208086	208087	Activator

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

†VOC: Volatile Organic Compounds

††HAP: Hazardous Air Pollutants

PACKAGING

One gallon:

Part 1 partial filled 1 gallon container
Part 2 partial filled 1 gallon container
Yield: One full gallon

Five gallon:

Part 1 partial filled 5 gallon container
Part 2 partial filled 5 gallon container
Yield: Five gallons

Available in one gallon kits:

Kit Number	Contains one short-filled gallon of each
251212	208072 Classic Gray and 208086 Activator
251173	208078 Dunes Tan and 208086 Activator

COMPANION PRODUCTS

213898 UltraWear Anti-Slip Additive

PRODUCT APPLICATION

SURFACE PREPARATION

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 3599 Industrial Pure Strength® Cleaner/Degreaser, detergent, or other suitable cleaner. Rinse with water. 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

PRODUCT APPLICATION (cont.)

The S40 is compatible with most coatings, but a test patch is suggested.

APPLICATION

Apply only when air and surface temperatures are between 50°-90°F (10°-32°C), surface is at least 5°F above the dew point and relative humidity is below 85% during and after application. 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.

TINTING

The S40 tint bases can be tinted with COLORTREND® PLUS™ 808, COLORTREND® 888, Rust-Oleum 2030 Water-based Colorants or other high quality water-based universal colorants. This product contains zero VOCs before tinting. Adding colorants may add VOCs. If used at the recommended levels, the VOC will not exceed 100 g/l.

White Pastel Base accepts 2 oz. of tint

Tint Base accepts 4 oz. of tint

Deep Base accepts 8 oz. of tint

EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality synthetic bristle brush.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atomizing 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	8-10 oz./min.	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

PRODUCT APPLICATION (cont.)

THINNING

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

MIXING

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

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.

PERFORMANCE CHARACTERISTICS

ALKALI RESISTANCE

METHOD: ASTM D1308
RESULT: No effect

IMPACT RESISTANCE (direct)

METHOD: ASTM D2794
RESULT: 35 in. lbs.

TABER ABRASION/ABRASION RESISTANCE

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

GLOSS AT 60°

METHOD: ASTM D523
RESULT: 80-85%

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.

For chemical and corrosion resistance, see the Rust-Oleum Industrial Brands Catalog (Form #206275).

RUST-OLEUM SIERRA PERFORMANCE

TECHNICAL DATA

S40 SYSTEM WATER-BASED EPOXY FLOOR COATING

PHYSICAL PROPERTIES

Resin Type		100% Epoxy
Pigment Type		Varies with color
Solvents		Water
Weight**	**Per Gallon**	9.0-12.5 lbs.
	Per Liter	1.1-1.5 kg
Solids**	**By Weight**	59.5%
	By Volume	50.0%
Volatile Organic Compounds**		0.0 g/l***
Recommended Dry Film Thickness (DFT) Per Coat		3.5-5.0 mils (87.5-125µ) for color finishes 2.0-3.0 mils (50-75µ) for clear finishes
Wet Film to Achieve DFT		7-10 mils (175-250µ) for color finishes 4.0-6.0 mils (100-150µ) for clear finishes
Theoretical Coverage at 1 mil DFT (25µ)		800 sq. ft./gal. (19.7 m^2/l)
Practical Coverage at Recommended DFT (assumes 15% material loss) Use this value for material quantity estimate		135-195 sq. ft./gal. (3.3-4.8 m^2/l) for color finishes 225-340 sq. ft./gal. (5.5-8.4 m^2/l) for clear finishes
Mixing Ratio		2:1 Part 1 to Part 2 by Volume
Induction Period**		None
Pot Life @ 70°-80°F		2 hours
Dry Heat Resistance		250°F (121°C), color may shift above 150°F (66°C)
Dry Times at 70°-80°F (21°-27°C) and 50% rel. hum.	**Recoat**	1-3 hours, clear finishes must be dry to the point where the coating is free of any remaining milkiness before recoating
	Foot Traffic	Light Foot Traffic: 3 hours; Normal Foot Traffic: 24 hours
	Full Traffic	72 hours, full chemical resistance will take 10-14 days
Shelf Life		3 years for Part 2, 2 years for Part 1
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	**Formulation**	Lead-free/Solvent-free
	Warning!	SEE MSDS FOR INFORMATION

Calculated values are shown and may vary slightly from the actual manufactured material.
**Activated material
***Measured by ASTM D6886. Tinting with some colorants may add minor amounts of VOC.

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