



S42 SYSTEM WATER-BASED EPOXY FLOOR COATING

DESCRIPTION

The S42 Water-Based Epoxy Floor Coating is a zero VOC[†], zero HAP, very low odor, medium-build, two component, water-based epoxy coating.

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

Rust-Oleum® Sierra Performance™ S42 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 S42 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: Satin finish.

PRODUCTS

1-Gallon	5-Gallon	Description
208088	208089*	White Pastel Tint Base
208090	208091*	Classic Gray
208092	208093*	Light Gray
208094	208095*	Neutral
208096	208097*	Activator

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

PACKAGING

One gallon:

Part 1 partial filled gallon container
Part 2 partial filled 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

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: Surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding to create a surface profile. The S42 Enamel Finish is compatible with most coatings, but a test patch is suggested.

PRODUCT APPLICATION (cont.)

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 spread out using a rubber squeegee, then back roll to smooth out the finish. This coating can tolerate application to damp surfaces; 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 airflow, 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 S42 tint bases can be tinted with Rust-Oleum 2030 Water-based Colorants or other high quality water-based universal colorants, however these colorants will slightly increase VOC, but if used at the recommended levels, the VOC will not exceed 100 g/l. Use Evonik COLORTREND® PLUS 802 colorants to maintain zero VOC.

White Pastel Tint Base accepts 1-2 oz. of tint.

EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality synthetic bristle brush.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atom 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: 48 in. lbs.

TABER ABRASION/ABRASION RESISTANCE

METHOD: ASTM D4060, CS-17 wheels, 500 gram load, 500 cycles

RESULT: Wear index 83, (41.5 mg loss)

GLOSS AT 60°

METHOD: ASTM D523

RESULT: 5-30%

ADHESION (concrete)

METHOD: ASTM D7234

RESULT: >200 psi

TENSILE STRENGTH

METHOD: ASTM D2370

RESULT: 2372 lbs./sq. in.

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

TECHNICAL DATA

S42 SYSTEM WATER-BASED EPOXY FLOOR COATING

PHYSICAL PROPERTIES

Resin Type		100% Epoxy
Pigment Type		Varies with color
Solvents		Water
Weight**	Per Gallon	12.1 lbs.
	Per Liter	1.5 kg
Solids**	By Weight	62.5%
	By Volume	48.3%
Volatile Organic Compounds**		0.0 [†] g/l
Recommended Dry Film Thickness (DFT) Per Coat		5-8 mils (125-200μ)
Wet Film to Achieve DFT		10-17 mils (200-425μ)
Theoretical Coverage at 1 mil DFT (25μ)		775 sq. ft./gal. (19.1 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss) Use this value for material quantity estimate		80-130 sq. ft./gal. (2.0-3.2 m ² /l)
Mixing Ratio		1:1 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.	Tack-free	30 minutes
	Recoat	1-2 hours
	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
Safety Information	Formulation	Lead-free/Solvent-free
	Warning!	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.

**Activated material.

[†]Measured by ASTM D6886. Tinting with some colorants may add minor amounts of VOC.

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

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