



SIERRA PERFORMANCE S-40 Epoxy Concrete Enamel

DESCRIPTION

Industrial performance, zero VOC, zero HAP, odorless, two component, water based epoxy coating.

TYPICAL USES

Designed for concrete floors in areas of light to medium vehicle traffic and where occasional spillage of mild chemicals may occur. Ideal for use in institutions, warehouses, schools, healthcare, food service, office buildings, hotels or in any area where paint odors or VOC's could be a problem

CHARACTERISTICS

- No odor upon application
- Excellent Durability
- Good chemical resistance against mild corrosive and chemical environments
- Able to apply multiple coats in one day
- Easy to wash & clean

Meets requirements of USDA FSIS Directive 11,000.4

APPEARANCE: Available in 11-premix gloss colors and 3 tint bases.

PRODUCTS

<u>1-Gallon</u>	<u>5-Gallon</u>	<u>Description</u>
208557	208558	Safety Red
208068	208069	Safety Yellow
208070	208071	Black
208072	208073	Classic Gray
208074	208075	Light Gray
208076	208077	Tile Red
208078	208079	Sand
208080	208081	Neutral
208082	208083	New Green
208084	208085	Satin Clear
208066	208067	Clear
208060	208061	White Pastel Tint Base
208062	208063	Tint Base
208064	208065	Deep Tint Base
208086	208087	Activator

COMPANION PRODUCTS

To achieve greater durability and an anti-slip surface, consider adding our Ultrawear additive. Blend one bag per gallon

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. The S-40 Concrete Enamel Finish is compatible with most coatings, but a test patch is suggested. **WARNING!** If you scrape, sand or remove old paint from any surface, you may release lead paint dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. The S-40 Concrete Enamel will not lift most previous coatings.

APPLICATION

Apply only when air and surface temperatures are between 50° - 90°F (4.5° - 32°C), surface is at least 5° above the dew point and relative humidity is below 85% during and after application. Apply by roller using a good quality 3/8-inch synthetic nap cover.

On new or uncoated concrete, a minimum of two coats of product should be applied. The first coat can be thinned 10% with fresh water to assist penetration into the concrete surface. The first coat



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PRODUCT APPLICATION (CONTINUED)

may be applied by roller, spray, or spread out using a rubber squeegee, then back roll to smooth out the finish. Apply the second coat by roller. Recoat previously coated floors by roller only.

This coating can tolerate application to damp surfaces; however, conditions must be favorable to allow the moisture to evaporate. 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.

TINTING

The S40 bases can be tinted with high quality water base universal colorants.

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 –.070	12-16 oz/min	40–60 psi
Siphon	0.055 –.070	-	40–60 psi
HVLP (various)	0.043 –.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

THINNING

If needed, thin with water

MIXING

Premix Part 2 to re-disperse settled pigment before adding the activator. Add in the activator and thoroughly mix for 3-5 minutes.

CLEAN-UP

Soap and water.

PERFORMANCE CHARACTERISTICS

PENCIL HARDNESS

METHOD: ASTM D3363
RESULT: 4H

CONICAL FLEXIBILITY

METHOD: ASTM D522
RESULT: >32%, 1/2" mandrel, No cracking

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: 152 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

BOND STRENGTH

METHOD: ASTM 4541
RESULT: 425 psi

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).



TECHNICAL DATA

SIERRA PERFORMANCE S-40 Epoxy Concrete Enamel

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	62%
	By Volume	45%
Volatile Organic Compounds* (activated material)		0‡
Recommended Dry Film Thickness (DFT) Per Coat		3.5 - 5 mils (87.5-125µ) for color finishes, 2 - 3 mils (50-75µ) for clears.
Wet Film to Achieve DFT		8 - 10 mils (200-250µ) for color finishes, 4 - 6 mils (100-150µ) for clears
Theoretical Coverage at 1 mil DFT (25 µ)		720 sq. ft/gal (17.7 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		125 - 175 sq. ft/gal (3.1 - 4.3 m ² /l) for color finishes 200 - 300 sq. ft/gal (4.9 - 7.4 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		4 hours
Dry Times at 70°-80° F (21°-27° C) and 50% RH	Tack-free	30 minutes
	Re-coat	1-2 hours, Clear finishes must be dry to the point where the coating is free of any remaining milkiness before recoating.
	Foot Traffic	24 Hours
	Full Traffic	72 hours, full chemical resistance will take 10-14 days.
Shelf Life		3 years for part 2, 1 year for part 1
Safety Information	Flash Point	Greater than 200°F
	Formulation	Lead-Free / Solvent-Free
	Warning!	PROTECT FROM FREEZING

*Activated material.

‡ Measured by EPA Test Method 24

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

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