1100 SL Industrial Epoxy Floor Coating

Description:

Simiron 1100 SL is a 100% solids, two-component, high-build epoxy floor coating that's designed for applications where heavy-duty protection is required. The 1100SL is easy-to-use, self-leveling and delivers a high gloss and chemically resistant surface. Combine with decorative chip, quartz or metallic powder systems to create an attractive and durable finish or broadcast non-slip aggregates to produce a non-slip surface.

Features & Benefits:

- Chemical resistant
- Solvent Free
- Seamless – high build coating
- Hard wearing & abrasion resistant
- Low Maintenance
- Excellent adhesion properties
- Impact resistant
- Self-Leveling
- Easy application features
- Combine with *decorative vinyl chips, quartz & metallic powders* to create an attractive and durable finish

Typical Uses:

- Industrial & Commercial Warehouses
- Food & Beverage Processing Facilities
- Electric Equipment Plants
- Manufacturing Facilities
- Pharmaceutical Plants
- Power Plants
- Clean rooms
- Automotive Service Areas
- High Traffic Applications
- Aircraft Hangars
- Workshops
- Assembly areas
- Schools
- Shop Floors
- Garages
- Laboratories
- Waste Water & Sewage Treatment Plants

Technical:

Physical Data

Finish	High Gloss
Color:	Clear, Haze Gray, Deck Gray, Light Gray, Sandstone, Tile Red, White & Black
Curing Mechanism	Chemical reaction between components
Volume Solids	100%
Weight Solids	100%
VOC (EPA method 24)	0 g/Liter
Mix Ratio	2 parts Base to 1 part Activator by Volume
DFT per Coat	10 to 30 mils 250 to 750 microns

Theoretical Coverage	ft²/Gallon	m²/Liter
10 mils (250 microns)	160	3.9
20 mils (500 microns)	80	1.9
30 mils (750 microns)	53	1.3

Shelf Life: 36 months, unopened and stored indoors at temperatures between 50°F (10°C) and 100°F (38°C)

Flash Point	°F	°C
Base	478	248
Activator	198	92

Performance:

Flexural Strength	ASTM D790	12,800 psi
Compressive Strength	ASTM C579	11,600 psi
Tensile Strength	ASTM D638	9,600 psi
Abrasion Resistance	ASTM D4060	50 mg loss
	CS17 wheel, 1000 cycles, 1 Kg load	
Hardness, Shore D	ASTM 2240	75

Surface Preparation:

Concrete and primed concrete surfaces must be clean, dry and free of contaminants such as dirt, dust, grease, oil and other foreign materials. A suitable moisture barrier must be in place for concrete slabs on-grade. If a moisture barrier is not in place, seasonal variations in ground moisture can cause excessive hydrostatic pressure regardless of results measured prior to coating application.

New/Bare Concrete
Refer to SSPC-SP13, NACE 6, or ICRI No. 310.2, CSP 2-3.
Surfaces should be thoroughly clean and dry. New concrete must be cured a minimum of 28 days. Concrete should be shot blasted or diamond ground to a surface profile CSP 2 or 3.

Concrete can be abrasive blasted (ASTM D4259) or mechanically abraded to achieve a profile equal to 60 grit sandpaper or coarser. Moisture vapor transmission should be 3 lbs. or less over a 1000 sq. ft. area during a 24 hour period, measured and confirmed through a calcium chloride test. Concrete should have a minimum surface tensile strength of 300 PSI verified by a pull-off adhesion test. Slabs on grade that do not have an appropriate moisture barrier installed may be subject to seasonal moisture migration that can result in coating disbandment. Should concrete not meet moisture vapor transmission or tensile strength requirements, contact your local sales representative for guidance. Consult the following ASTM methods: ASTM- 4263 – plastic sheet method for checking moisture in concrete; ASTM 4258 standard practice for cleaning concrete; ASTM 4259 standard practice for abrading concrete.

Previously Painted Concrete
Old coatings and concrete must be in sound condition. Surfaces must be clean, dry and free of contaminants such as dirt, dust, grease, oil and other foreign materials. Old coatings must be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if the old coatings are peeling, chipping or are otherwise in poor condition, remove the coatings down to bare concrete and prepare the bare concrete as shown above.

Application Data:

Application Temperature Conditions

Air	55°-95°F	13°-35°C
Surface	55°-95°F	13°-35°C
Material	55°-95°F	13°-35°C

Drying Schedule @ 10.0 mils wet (250 microns)

	@ 55°F/13°C	@ 72°F/22°C	@ 95°F/35°C
To Touch:	16-24 Hours	8-12 Hours	4-8 Hours
To Recoat (Minimum):	24 Hours	18 Hours	16 Hours
*To Recoat (Maximum):	72 Hours	72 Hours	48 Hours
Foot Traffic:	36 Hours	24 Hours	18 Hours
Heavy Traffic:	96 Hours	72 Hours	60 Hours
Full Cure:	7 Days	7 Days	7 Days
Pot Life:	55 minutes	45 minutes	20 minutes

Recoating after maximum recoat hours requires surface abrasion to ensure proper adhesion

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Application Equipment:

Squeegee – Flat or notched rubber squeegee (depending upon DFT required) with EPDM rubber blade, available from manufacturers of quality application tools like Midwest Rake Company.

Rollers – Use a 3/8" shed-resistant woven roller cover with phenolic core for back-rolling, available from manufacturers of quality application tools like Wooster Brush Company.

Mixing:

1100SL is a two-component coating and proper mixing is required. Mix base thoroughly to disperse pigment before mixing with activator. Mix 2 parts base to 1 part activator by volume for three minutes, material is immediately ready for use after mixing base and activator; no induction time required. Do not mix more material than can be used within the working time. See charts for appropriate times and pot life. Material that has begun to set (thicken) cannot be satisfactorily used and must be discarded. Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.

Application Procedure:

Pour mixed material onto floor in a long bead approximately 12-18 inches wide. Do not drain or scrape remaining material in bucket.

Use either a flat or notched rubber squeegee and spread material to uniform thickness. As material is being spread, another applicator should immediately back-roll material with a 3/8" shed-resistant woven roller cover. DO NOT BACK-ROLL MATERIAL AFTER IT BEGINS TO TACK-UP.

COLOR VARIATION: When coating a single floor area, always use material with the same batch number. If using more than one batch number, be sure to mix the material from different batch numbers together to ensure color uniformity. Color uniformity cannot be guaranteed from batch to batch. To help prevent visual color differences during application, be sure to minimize the time between tie-ins. Use control joints or natural breaks as breaking points between mixes. Color differences can be caused by variations in temperature, humidity, substrate temperature, induction time, mil thickness, product reactivity and surface profile. Consult with a Simiron representative for help or questions with your project

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Clean Up:

Clean brushes, rollers, tools and equipment with acetone or xylene and follow solvent manufacturer's safety instructions. Use "waterless" hand cleaner to remove dried material from skin.

Shipping Data:

Packaging	5 gallon pails	
Base:	5 US Gal (18.9 L)	
Activator:	5 US Gal (18.9 L)	
Weight	lbs.	Kgs.
Base	55	25
Activator	46	21

Safety Precautions:

Refer to SDS sheet before use. Safety precautions must be strictly followed during storage, handling and use. Copy of SDS can be found within Simiron.com.

Warranty:

Simiron warrants this product to be free from defect in the material that affects its performance for a period of one year (from date of purchase). Simiron will replace, at no charge, the quantity of the coating that Simiron determines has failed to perform, as the sole and exclusive remedy for any breach of this warranty and/or any other defect or failure of the coating. Proof of purchase is required. Cost of labor for application of any product specifically is excluded.

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