Systems data sheet

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SCI-Flake System

DESCRIPTION

SCI-Flake System is a 100% solid, two component epoxy coating with vinyl flake broadcast system. It is extremely durable with a good abrasion resistance. This system has been designed for pedestrian and vehicular traffic.

This system is composed of:

1. Optional: A coat of primer (SCI-100-LV)
2. Option 1: A coat (8-10 mils) of colored SCI-100 with partial vinyl flake broadcast
3. Option 2: A coat (8-10 mils) of colored SCI-100 with full vinyl flake broadcast
4. Final coat of SCI-100 clear (8-12 mils) depending on the level of anti-slip required
5. Option: replace SCI-100 with SCI-300-8084 or SCI-300-80 (aliphatic coating with UV protection)

PRIMARY APPLICATIONS

- Aircraft hangers
- Warehouses
- Residential and commercial garages
- Exterior balconies
- Locker rooms and showers
- Production lines
- Stadiums
- Printing shops

ADVANTAGES

- Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- Ideal for fixing or reinforcing floors
- Impermeable and seamless
- Seamless coves can be shaped using SCI-COVE
- Dense surface resistant to bacteria and moisture and easy to clean
- Excellent adhesive properties, allowing for application on a wide variety of substrates
- May apply several layers on itself with excellent adhesion

TECHNICAL DATA

Packaging liters/ US gal	11.34 l / 3	15.9 l / 4.2	56.7 l / 15
Color	**Part A**	**Part B**	**Mixture**
	Upon Request	Clear - Amber	Same as Part A
Recommended Thickness Primer : SCI-100	8 - 10 mils / 160 - 200 ft² US gal		
Finish Coat : SCI-100	8 - 12 mils / 133 - 200 ft² US gal		
Shelf Life	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.		
Mix Ratio, by volume	A : B = 2 : 1		

***Please note that the indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.**

Pot life (150g)	50-60 minutes 25°C		
VOC (g/litre)	41.77		
Density (kg/litre)	**Part A**	**Part B**	**Mixture**
Clear	1.11 - 1.13	0.9 - 1.0	-
Colored	1.11 - 1.15	0.9 - 1.0	-
Solids by weight %	100%		
Recommended Thinner	Xylene		
Substrate Temperature	**10ºC**	**20ºC**	**30ºC**
Waiting Time / Overcoatability (min/max)	16 / 48	8 / 24	6 / 24
Curing Details			
Foot traffic	30 hours	24 hours	16 hours
Light traffic	5 days	3 days	2 days
Full cure & chemical resistance	10 days	7 days	5 days

***Note: Times and data mentioned are based on laboratory conditions. Field results may vary and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.**

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PROPERTIES @ 23°C (73°F) 50% R.H. SCI-100	**Bond Resistance (psi), ASTM D4541**	268 (substrate ruptures)		
	Permeability (%) ASTM D570	0.3		
	Hardness (Shore D), ASTM D2240	85 - 90		
	Tensile Strength (psi), ASTM D638	5500		
	Compressive Strength, ASTM D695	10,000 +		
	Elongation (%), ASTM D638	6.7		
	Abrasive resistance, ASTM D4060 (CS17 / 1000 cycles / 1000 g)	0.10 g		
	Viscosity @ 25°C (cps)	**Part A**	**Part B**	**Mixture**
	Clear	1200 - 1400	200 - 400	700 - 900
	Colors	1400 - 1600	200 - 400	1000 - 1200

SURFACE PREPARATION

The surface to be coated must be well primed. Remove dust, laitance, grease, oils, dirt, impregnating agents, waxes, foreign matter, any previous coatings, and disintegrated substances by mechanical means such as shot-blasting (BLASTRAC) or any other approved method to obtain an ICRI-CSP 3-4 profile. The compressive strength of the concrete must be at least 25 MPa (3625 lbs/in^2) after 28 days and the tensile strength at least 1.5 MPa (218 lbs/in^2).

MIXING

The products must be conditioned at a temperature between 18°C (65°F) and 30°C (86°F).

Pre-mixed color or clear (A)

Mix the resin part (A) perfectly before pouring the hardener (part B) according to the indicated mixing ratio. Depending on product amount and size of mixing equipment, mix for 1 to 3 minutes at low speed (300 to 450 rpm). During mixing, scrape the walls and bottom of the container at least once with a trowel to obtain a homogeneous mixture. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

Part (A) when adding color pod

Incorporate a full colored container into the clear part (A), and then thoroughly mix until the color is uniform (**one colored container pod per part A gallon**) before pouring in the hardener (part B) according to the indicated mixing ratio. Depending on product amount and size of mixing equipment, mix for 1 to 3 minutes at low speed (300 to 450 rpm). During mixing, scrape the walls and bottom of the container at least once with a trowel to obtain a homogeneous mixture. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

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APPLICATION

APPLICATION BASE COAT:

Basecoat: option 1 (partial broadcast)

Apply a colored coat of SCI-100 (chose color similar to that of vinyl flakes) using a rubber squeegee and pass a roller to obtain a uniform coating. On the wet coating apply enough vinyl flakes to partially broadcast the coating.

Basecoat: option 2 (full broadcast)

Apply a colored coat of SCI-100 (chose color similar to that of vinyl flakes) using a rubber squeegee and pass a roller to obtain a uniform coating. On the wet coating apply enough vinyl flakes to completely broadcast the coating.

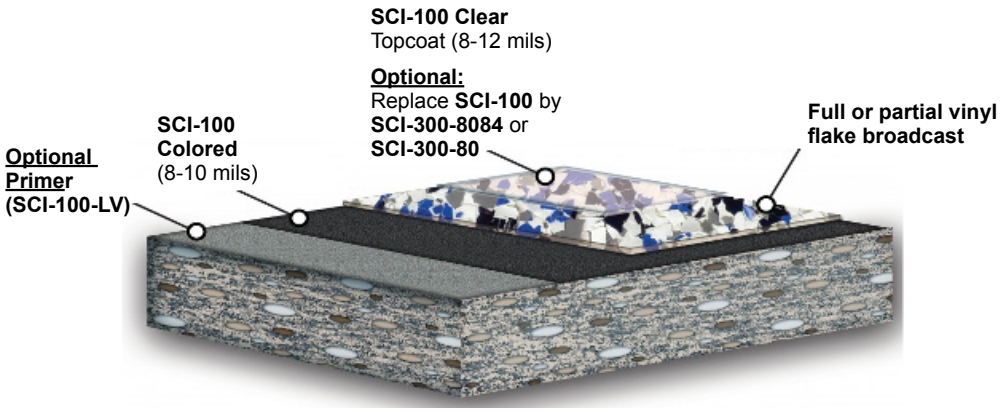
APPLICATION TOPCOAT:

Topcoat: option 1 (partial broadcast)

Apply a topcoat of clear SCI-100 using a rubber squeegee and pass a roller to obtain a uniform coating.

Topcoat: option 2 (full broadcast)

Once the basecoat has cured and hardened remove any excess flakes and pass a scraper to cut down any uneven flakes. Use a blower or vacuum cleaner to clean any remaining flakes before applying a topcoat of SCI-100 using a rubber squeegee and pass a roller to obtain a uniform coating.



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CLEANING	Clean all application equipment with the recommended cleaner (Xylene). Once the product has hardened, it can only be removed by mechanical means. In case of skin contact, wash thoroughly with warm soapy water.
RESTRICTIONS	■ Do not apply at temperatures below 10°C / 50°F or above 30°C / 86°F ■ The relative humidity of the surrounding work environment during the application of the coating and throughout the curing process should not exceed 85% ■ Substrate temperature must be 3°C (5.5°F) above dew point measured ■ Humidity content of substrate must be <4% when coating is applied ■ Do not apply on porous surfaces where a transfer of humidity may occur during the application ■ The application of this coating on an interior or exterior substrate without a moisture barrier is at risk of detachment (by hydrostatic pressure). ■ Protect the coating from all sources of moisture for a period of 48 hours ■ Surface may discolor in areas exposed to regular ultraviolet light
HEALTH AND SAFETY	In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation. Consult the material safety data sheet for further information.
IMPORTANT NOTICE	The information and recommendations contained in this document are based on reliable test results according to SCI COATINGS INC. The data mentioned are specific to the material indicated. If used in combination with other materials, the results may be different. It is the responsibility of the user to validate the information therein and to test the product before using it. SCI COATINGS INC. assumes no legal responsibility for the results obtained in such cases. SCI COATINGS INC. assumes no legal responsibility for any direct, indirect, consequential, economic or any other damages except to replace the product or to reimbursement the purchase price, as set out in the purchase contract.