Systems data sheet

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SCI-Slurry System

DESCRIPTION

SCI-Slurry System is an easy to use epoxy slurry system, applied at thicknesses between 1mm-5mm, designed to protect new or deteriorated floors. SCI-Slurry System provides excellent resistance against compression, abrasion, impacts and chemicals. SCI-Slurry System meets all kinds of requirements such as durability, performance as well as aesthetics. Seamless plinths are optional with SCI-COVE. This seamless coating offers an unlimited choice of color, and a smooth or non-slip finish can be achieved using very fine to very aggressive aggregates. This system has been approved by the Canadian Food Inspection Agency (CFIA).

This system is composed of:

1. Primer coat (SCI-100-LV)
2. Base coat of (SCI-Slurry System) applied at thickness between 1mm - 5 mm
3. Top coat (SCI-100) colored 10-15 mils
4. Optional 2nd top coat of (SCI-300-MPL) 3-8 mils
5. Cove base are optional

PRIMARY APPLICATIONS

- Aircraft hangars
- Pharmaceutical production areas
- Assembly areas
- Classrooms
- Refineries
- Waste treatment plants
- Laboratories
- Areas of light to heavy manufacturing
- Mechanical rooms
- Areas of high traffic circulation

ADVANTAGES

- Contains 100% solids, allowing for interior applications without harmful odors
- Ideal for reinforcing concrete surfaces
- Superior compression strength
- Impact resistant
- 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 **SCI-Slurry System (A/B)**	11.34 Litres / 3 US gallons			
Color	**Part A**	**Part B**	**Part C**	**Mixture**
	On Request	Clear - Amber	Sand	Wet Sand or like Part A
Recommended Thickness				
Primer: SCI-100-LV	8 mils / 200 ft² US gal			
Top Coat: SCI-100-LV	10-15 mils/ 106-160 ft² US gal			
Mileage: Epoxy Mix / Sand	(1 gallon epoxy A/B + 1 gallon sand 70 mesh = 1.6 gallon)			
1 mm	61.8 ft² per 1,6 gallon			
2 mm	30.72 ft² per 1,6 gallon			
3 mm	20.5 ft² per 1,6 gallon			
4 mm	15.5 ft² per 1,6 gallon			
5 mm	12.25 ft² per 1,6 gallon			
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. *Consult individual data sheets for the products related to the SCI-Slurry System.*			
Mix Ratio, by volume	A : B : C = 2 : 1 : 3			

***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.**

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TECHNICAL DATA	**Pot life (150g) (SCI-100-LV)**	60-65 minutes 25°C		
	VOC (g/litre) (SCI-100-LV)	41.77		
	Density (kg/litre) (SCI-100-LV)	**Part A**	**Part B**	**Mixture**
	Clear	1.10 – 1.12	0.9-1.0	-
	Color	1.10 – 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 / 48	5 / 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.**			

PROPERTIES @ 23°C (73°F) 50% R.H. (SCI-100-LV)	**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	100-200	600-800
	Color	1400-1600	100-200	900-1100

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).

How to prepare part A and B for the system

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.

How to prepare the epoxy mortar A/B/C

Transfer the A/B mixture into a mixing tank for mortars (Ted Baugh mixer – Kol mixer) and gradually incorporate (Part C) and mix for 2-3 minutes until all the aggregates are evenly incorporated. Immediately spread the mixture on the primed surface. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

Important: To not see a difference in color between mixes always mix for the same amount of time between each mixture (mixing too long will burn the colored aggregates and discolor them.

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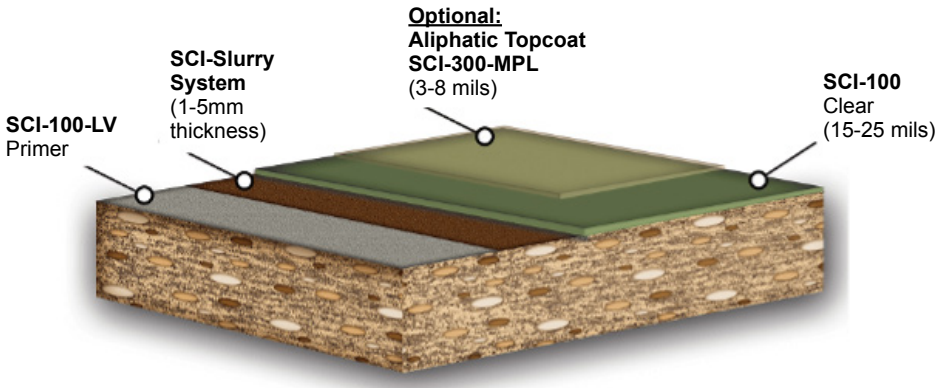
APPLICATION	**APPLICATION: Primer coat SCI-100-LV** Apply the coating using a rubber squeegee and pass a roller to obtain a uniform coating. **APPLICATION: Base coat SCI-Slurry System** Once the first coat has cured completely, remove any excess aggregates and make sure the surface is clean. Apply a 2nd coat of SCI-100 using a rubber squeegee and pass a roller to obtain a uniform coating. Broadcast the quartz aggregates into the wet coating until full saturation is achieved. **APPLICATION: Top coat** It is possible to apply a topcoat (SCI-100 colored) directly on the base coat by using a rubber squeegee and passing a roller to obtain a uniform coating. If any imperfections are visible on the basecoat, start by sanding the cured coating using a rotary or orbital sander, and then clean the sanded surface well before applying the topcoat. **OPTIONAL: Top coat** Replace the SCI-100 topcoat by an aliphatic or a chemical resistant topcoat, depending on desired application.



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

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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.