Systems data sheet

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SCI-Trowel Mortar System

DESCRIPTION

SCI-Trowel Mortar System is a 3 component epoxy trowel mortar system, applied at thicknesses between 3mm-6mm (1/8in-1/4in), and designed to protect new or deteriorated floors. SCI-Trowel Mortar System provides excellent resistance against compression, abrasion, impacts and chemicals. SCI-Trowel Mortar 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 3mm-6mm (1/8in-1/4in)
3. 1st sealing grout coat (SCI-100-OP) clear 15-25 mils
4. 2nd sealing grout coat (SCI-100-OP) clear 15-25 mils
5. Top coat (SCI-100) clear 10-15 mils
6. Optional 2nd top coat of (SCI-300-MPL) 3-8 mils
7. Cove base are optional

PRIMARY APPLICATIONS

- Heavy manufacturing
- Areas of heavy equipment assembly
- Heavy traffic circulation areas
- Repair deteriorated floors
- Food industry
- Changing rooms
- Food processing plant
- Workshops

ADVANTAGES

- Contains 100% solids, allowing for interior applications without harmful odors
- Impermeable and seamless
- Anti-slip texture that is easy to clean
- 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 26 kg	**Part A**	**Part B**	**Part C**	
	1.9 liters	0.9 liters	22.7 kg	
Color	**Part A**	**Part B**	**Part C**	**Mixture**
	Clear	Clear - Amber	Sand	Wet Sand
Recommended Thickness				
Primer: SCI-100-LV	200 ft² US gal			
Base coat per unit	17 ft² at a thickness of 6mm(¼ in)			
Sealing coat	64-106 ft² US gal per coat			
Top coat	106-160 ft² US gal			
Optional aliphatic topcoat	200-500 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 : C = 1.8 L / .9L /22.7kg (aggregate)			

***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)	**Part A**	**Part B**	**Part C**	**Mixture**
	Clear	1.10 – 1.12	0.9-1.0	-	-
	Colored	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)	24 / 72	8 / 48	5 / 24	
	Curing Details				
	Foot traffic	-	-	-	
	Light traffic	-	-	-	
	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**	**Part C**	**Mixture**
		1200-1400	100-200	-	-

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.

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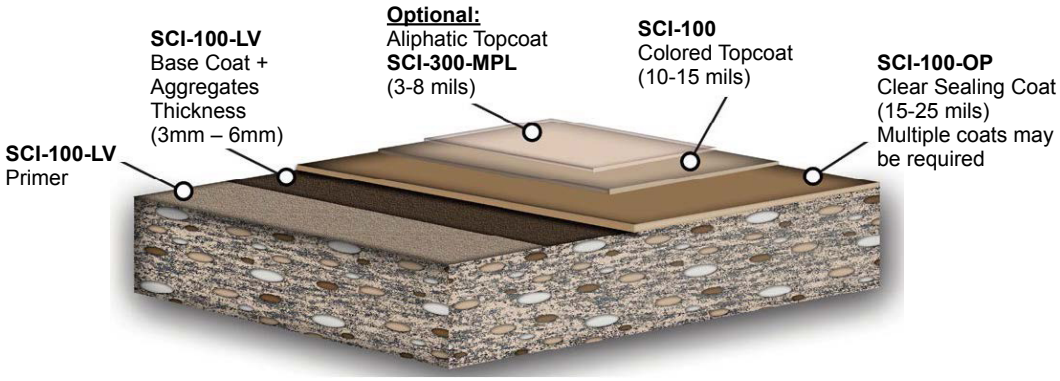
APPLICATION	**APPLICATION: Primer coat SCI-100-LV clear** Apply the coating using a rubber squeegee and pass a roller to obtain a uniform coating. **APPLICATION: Base coat SCI-100-LV clear with aggregates** On the damp or sticky surface apply the base coat using a trowel, an adjustable rake, or a screed box to achieve desired thickness and smooth with a rounded stainless steel trowel; use a slip agent (SCI- 200) to facilitate the work. **APPLICATION: Sealing grout coat same color as the top coat.** Apply the sealing grout coat (SCI-100-OP clear) with a brush or a roller and force the penetration of the epoxy with a steel, plastic or rubber spatula to fill the irregularities of the surface. Pass a roller to make the sealing layer uniform. Two to three layers may be required depending on the finish of the base coat. **APPLICATION: Top coat** Apply the finish coat (SCI-100) using a roller or a brush to obtain a uniform coating. **OPTIONAL: Top coat** Replace the SCI-100 topcoat by an aliphatic or a chemical resistant topcoat, depending on desired application.



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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.