Systems data sheet

January 1, 2024
Revision #1

SCI COATINGS INC. • 8320 GRENACHE, ANJOU (QC) H1J 1C5, CANADA
scicoatings.com

SCI-Metallic System

DESCRIPTION

SCI-Metallic System is a 100% solid, two component epoxy coating. With a metallic and glossy finish, SCI-Metallic System offers the same physical and chemical properties as the SCI-100 product range with an exceptional look, and a seamless and easy to clean finish. SCI-Metallic System meets all kinds of requirements such as durability, performance as well as aesthetics. This seamless coating offers a wide range of metallic colors that can satisfy any aesthetic requirement. This system has been approved by the Canadian Food Inspection Agency (CFIA). It meets LEED standards.

This system is composed of:

1. Optional: A coat of primer (SCI-100 LV)
2. 1st coat of (SCI-100) 8 mils
3. 2nd coat of (SCI-100) 30-40 mils. Clean with liquid metallic pods or powders.

PRIMARY APPLICATIONS

- Offices
- Showrooms
- Boutiques
- Classrooms
- Clean rooms
- Laboratories
- Commercial reception areas

ADVANTAGES

- Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- Impermeable and seamless
- Ultra-design appearance
- 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 mils / 200 ft² US gal		
Finish Coat : SCI-100-MT	30-40 mils / 40-53 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.**

SCI-100-MT complies with the following LEED requirements
IEQ Credit 4.2: Low emitting materials; Paints and coating
SCAQMD Method 304-91
VOC content < 110 g / L

SCI-Metallic System

TECHNICAL DATA	**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.**			

PROPERTIES @ 23°C (73°F) 50% R.H.	**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.

SCI-Metallic System

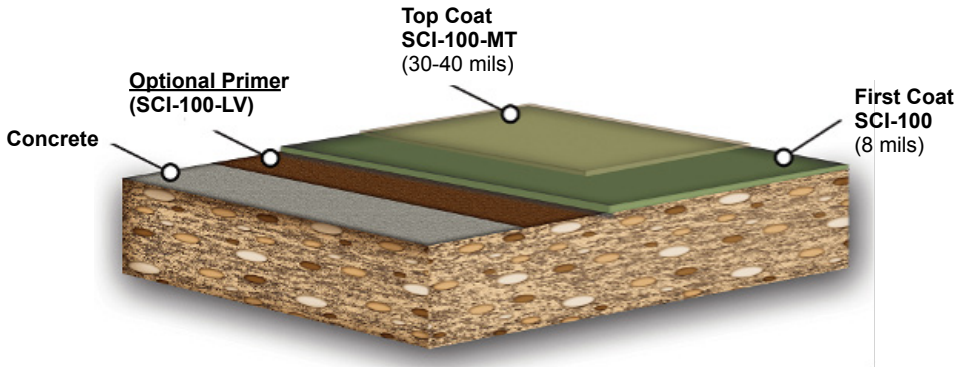
APPLICATION

APPLICATION: 1st coat of SCI-100-LV

Apply the coating using a rubber squeegee and pass a roller to obtain a uniform coating.

APPLICATION: 2nd coat of SCI-100 with metallic liquid or powder

Apply the finish coat using a rubber squeegee or a suggested trowel and allow the product to self-level. (**It is not recommended to use a roller for the top coat**).



SCI-Metallic System

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.