Technical data sheet

February 26, 2024
Revision #3

SCI COATINGS INC. • 8320 GRENACHE, ANJOU (QC) H1J 1C5, CANADA
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SCI-100 HD

Contaminated concrete floor Epoxy Coating System

DESCRIPTION	SCI-100-HD is a 100% solid, two component epoxy coating system, designed to restore contaminated concrete floors. It shows orange peel and glossy finish while having high covering power. SCI-100-HD provides excellent physical and chemical resistance as well as durability while maintaining its aesthetics appearance. Seamless plinths are optional with SCI-100-COVE. This system complies with the Canadian Food Inspection Agency (CFIA) and meets LEED standards.
PRIMARY APPLICATIONS	■ Dry and humid treatment areas ■ Commercial and industrial buildings ■ Health care facilities ■ Laboratories ■ Surfaces where moderate mechanical and chemical resistance is needed ■ Recreation centers
ADVANTAGES	■ Minimum application of 10 mils for a smooth finish or orange peel texture may appear ■ 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-100-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 ■ Controls contamination

TECHNICAL DATA

Packaging litres / gal us	11.34 l / 3	15.9 l / 4.2	56.7 l / 15
Color	**Part A** Upon Request	**Part B** Clear to Amber	**Mix** Same as Part A
Recommended Thickness Primer : SCI-100 Finish Coat : SCI-100	8 mils / 200 ft² us gal 10 mils / 160 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		
Mix Ratio, by weight	100/46 (Clear) or 100/44 (Colored)		

***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 surface area.*

Pot Life (150 g)	50 - 60 minutes 25°C		
VOC (g/litre)	30		
Specific Gravity	**Part A**	**Part B**	**Mix**
Clear	1.14	1.15- 1.26	--
Colors	1.15 - 1.20	1.15- 1.26	--
Solids Content, by weight	100%		
Thinner Recommended	XYLENE		
Waiting Time/ Overcoat Ability			

Substrate Temperature	**Minimum**	**Maximum**
10 ºC / 50°F	16 hours	48 hours
20 ºC / 68°F	8 hours	24 hours
30 ºC / 86°F	6 hours	24 hours

Curing Details	**Substrate Temperature**	**Foot Traffic**	**Light Traffic**	**Full cure**
	10 ºC / 50°F	30 hours	5 days	10 days
	20 ºC / 68°F	24 hours	3 days	7 days
	30 ºC / 86°F	16 hours	2 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) and 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 (psi MPa), ASTM D695	6800		
	Elongation %, ASTM D638	6.7%		
	Abrasive resistance, ASTM D4060 (CS17 / 1000 cycles / 1000 g)	0.10 g		
	Viscosity (cps)	**Part A**	**Part B**	**Mix**
	Clear	2500-2700	20000-23000	6500-7000
	Colors	2700-3200	20000-23000	7000-7500

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.

APPLICATION

APPLICATION : 1st coat of SCI-100 (8 mils)

Apply the coat of (SCI-100) using a rubber squeegee and pass a roller to obtain a uniform coating.
If the primer option is not used it is advisable to apply SCI-100 as the first coat for better adhesion.

APPLICATION : 2nd coat of SCI-100 (20 mils)

Apply the top coat of (SCI-100) using a rubber squeegee and pass a roller to obtain a uniform coating.
Then pass a textured roller to obtain the uniform texture desired.

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 a physician. For respiratory irritations, move affected person outdoors to fresh air. Remove contaminated clothes and wash before reuse. Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke irritation. Avoid eye contact. Contact with product may cause severe burns. Avoid breathing vapors released 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. Always work in a properly ventilated area. ***Consult the material safety data sheet for further information.***
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