



Systems data sheet

January 1, 2024
Revision #1



SCI-Membrane System

DESCRIPTION

SCI-Membrane System is a solventless, 100% solid, two component, epoxy-polyurethane membrane coating system. SCI-Membrane System is a seamless impermeable membrane coating system, which was specifically designed to protect substrates against water infiltration. This membrane exhibits high elongation and a high resistance to tearing. This system has been approved by the Canadian Food Inspection Agency (CFIA).

This system is composed of:

1. A coat of primer (SCI-100-LV)
2. A coat of (SCI-100-M300 or M200) 20-30 mils
3. 1st wear coat of (SCI-100-M70) 20-25 mils with partial aggregate broadcast
4. 1st wear coat of (SCI-100-M70) 20-25 mils with full aggregate broadcast
5. 2nd wear coat of (SCI-100-M70) 20-25 mils with partial aggregate broadcast
6. Option: Topcoat SCI-300-MPL (aliphatic coating with UV protection)

AGGREGATE GRADE	APPLICATION AREA	2.	3.	4.	5.
N° 28	Parking area	X	X		
N° 28	Circulation lanes	X	X		X
N° 28	Turns	X		X	X
N° 28-16(aggressive)	Ramps	X		X	X

PRIMARY APPLICATIONS

- Dry Parking deck on structural concrete slabs
- Balcony terraces
- Mechanical rooms

ADVANTAGES

- Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- Impermeable and seamless
- Seamless coves can be shaped using SCI-COVE
- Superior flexibility
- 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
SCI-M300/M200	On Request	Clear - Amber	On Request
SCI-100-M70	On Request	Clear - Amber	Like Part A
Recommended Thickness			
Membrane: SCI-M300/M200	20 - 30 mils / 53 - 80 ft² US gal	510 - 769 ml/m²	
Wear-coat: SCI-100-M70	20 - 25 mils / 65 - 80 ft² US gal	510 - 627 ml/m²	
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)	SCI-100-M70 : 50-60 minutes 25°C		
VOC (g/litre)	SCI-100-M70 : 40.10		
Density (kg/litre)	Part A	Part B	Mixture
SCI-100-M70	1.11 - 1.13	0.9 - 1.0	-
Solids by weight % SCI-100-M70	100%		
Recommended Thinner	Xylene		



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TECHNICAL DATA	Substrate Temperature	10°C	20°C	30°C
	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. SCI-100	Bond Resistance (psi), ASTM D4541	300 (substrate ruptures)		
	Permeability (%) ASTM D570	0.3		
	Hardness (Shore D), ASTM D2240	75-80		
	Tensile Strength (psi), ASTM D638	4200		
	Compressive Strength, ASTM D695	7000 - 8500		
	Elongation (%), ASTM D638	70		
	Abrasive resistance, ASTM D4060 (CS17 / 1000 cycles / 1000 g)	0.60		
	Viscosity @ 25°C (cps)	Part A	Part B	Mixture
	Clear	1400 - 1600	200- 400	-
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	<p>The products must be conditioned at a temperature between 18°C (65°F) and 30°C (86°F).</p> <p>Pre-mixed color</p> <p>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.</p>			



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APPLICATION

APPLICATION: Primer coat of SCI-100-LV

Apply the coating as recommended on the SCI-100-LV data sheet

APPLICATION: Membrane coat SCI-100-M300/M200

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

APPLICATION: 1st layer of SCI-100-M70 (wear coat)

Apply the topcoat with a rubber squeegee and pass a roller to obtain a uniform coating. Partially saturate the wet coating with the selected aggregates and pass a roller to evenly coat.

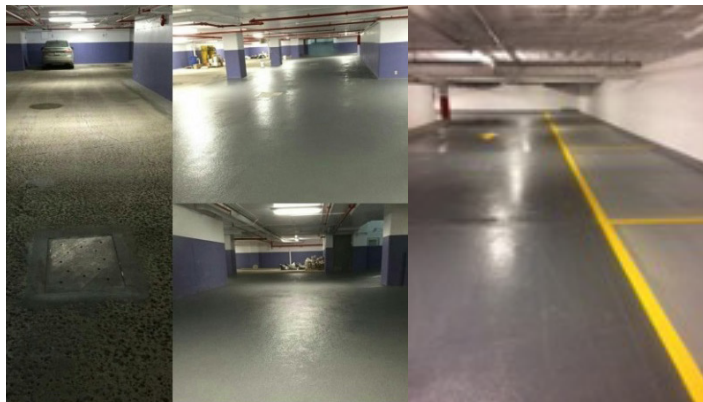
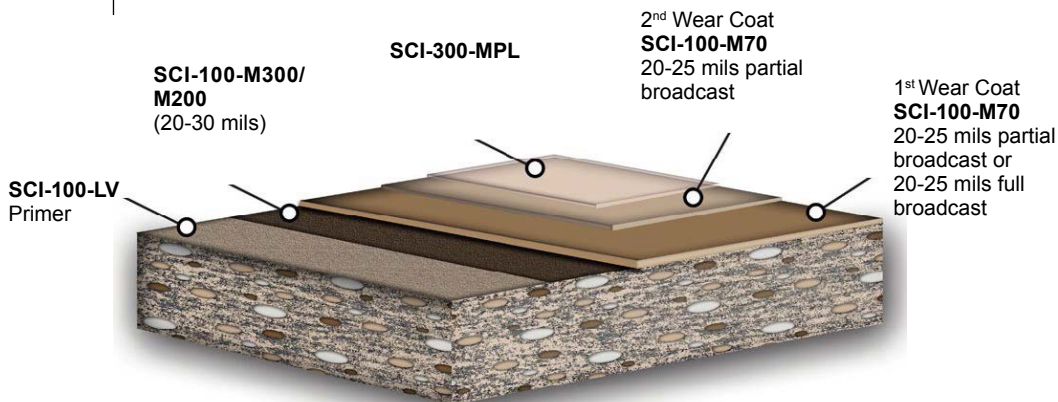
APPLICATION: 2nd layer of SCI-100-M70 (wear coat)

Apply the topcoat with a rubber squeegee and pass a roller to obtain a uniform coating. Partially saturate the wet coating with the selected aggregates and pass a roller to evenly coat.

For areas requiring full saturation apply the coating in the same way and completely saturate the surface with the selected aggregates. Allow the coating to cure and remove any excess aggregate and clean thoroughly before applying the second wear coat.

Always apply the coating on the vertical walls at a minimum height of 4 in.

System varies according to application area:





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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	<ul style="list-style-type: none">■ 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.