



# Systems data sheet

January 1, 2024  
Revision #1



# SCI-Quartz Broadcast System

DESCRIPTION	<p>SCI-Quartz Broadcast System is an epoxy and quartz broadcast anti-slip system, applied at thicknesses between 1.5mm-3mm (1/16in-1/8in), and designed to protect new or deteriorated floors. SCI-Quartz Broadcast System provides excellent resistance against compression, abrasion, impacts and chemicals. SCI-Quartz Broadcast 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).</p> <p><b>This system is composed of:</b></p> <ol style="list-style-type: none"><li>1. Optional: Primer coat (SCI-100-LV)</li><li>2. 1<sup>st</sup> coat of epoxy (SCI-100) clear 15-20 mils with full colored quartz broadcast</li><li>3. 2<sup>nd</sup> coat of epoxy (SCI-100) clear 15-20 mils with full colored quartz broadcast</li><li>4. Top coat (SCI-100) 10-15 mils</li><li>5. Second coat of (SCI-100) clear 10-20 mils if required</li><li>6. Optional 2<sup>nd</sup> top coat of (SCI-300-MPL) 3-8 mils</li><li>7. Cove base are optional</li></ol>			
PRIMARY APPLICATIONS	<ul style="list-style-type: none"><li>■ Aircraft hangars</li><li>■ Pharmaceutical production areas</li><li>■ Assembly areas</li><li>■ Classrooms</li><li>■ Refineries</li><li>■ Waste treatment plants</li><li>■ Laboratories</li><li>■ Areas of light to heavy manufacturing</li><li>■ Mechanical rooms</li><li>■ Areas of high traffic circulation</li></ul>			
ADVANTAGES	<ul style="list-style-type: none"><li>■ Contains 100% solids, allowing for interior applications without harmful odors</li><li>■ Ideal for reinforcing concrete surfaces</li><li>■ Provides a durable anti-slip and architectural finish</li><li>■ Superior compression strength</li><li>■ Impact resistant, impermeable and seamless (seamless coves can be shaped using SCI-COVE)</li><li>■ Dense surface resistant to bacteria and moisture and easy to clean</li><li>■ Excellent adhesive properties, allowing for application on a wide variety of substrates</li><li>■ May apply several layers on itself with excellent adhesion</li></ul>			
TECHNICAL DATA	Packaging liters/ US gal	11.34 l / 3	15.9 l / 4.2	56.7 l / 15
	Color	Part A	Part B	
		Clear	Clear - Amber	
	Recommended Thickness			
	Optional primer coat: SCI-100-LV	SCI-100-LV 8 mils / 200 ft² US gal		
	1 <sup>st</sup> saturation SCI-100	15-20 mils / 80-106 ft² US gal		
	2 <sup>nd</sup> saturation SCI-100	15-20 mils / 80-106 ft² US gal		
	Top coat SCI-100	15-20 mils / 80-106 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. <i>Consult individual data sheets for the products related to the SCI-Quartz Broadcast System.</i>		
	Mix Ratio, by volume	A : B = 2 : 1		
<p><b>*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.</b></p>				



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TECHNICAL DATA	Pot life (150g) (SCI-100)	50-60 minutes 25°C		
	VOC (g/litre) (SCI-100)	41.77		
	Density (kg/litre) (SCI-100)	Part A	Part B	Mixture
	Clear	1.11 - 1.13	0.9 - 1.0	-
	Solids by weight %	100%		
	Recommended Thinner	Xylene		
	Substrate Temperature	10°C	20°C	30°C
	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
	<b>*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.</b>			
PROPERTIES @ 23°C (73°F) 50% R.H. (SCI-100)	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
		1200-1400	200 - 400	-
SURFACE PREPARATION	<p>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<sup>2</sup>) after 28 days and the tensile strength at least 1.5 MPa (218 lbs/in<sup>2</sup>).</p>			
MIXING	<p>The products must be conditioned at a temperature between 18°C (65°F) and 30°C (86°F).</p> <p><b><u>How to prepare part A and B for the system</u></b></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.</p>			



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## APPLICATION

### APPLICATION: 1<sup>st</sup> coat (SCI-100) with quartz broadcast

Apply the coating 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: 2<sup>nd</sup> coat (SCI-100) with quartz broadcast

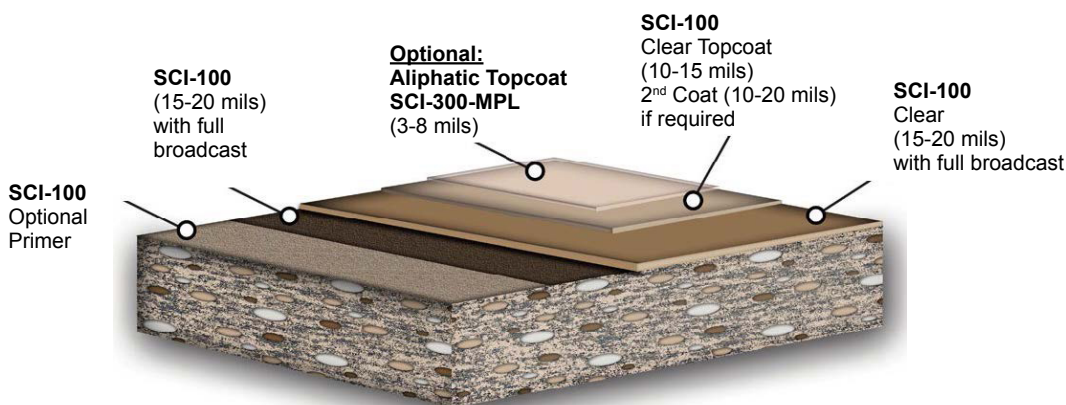
Once the first coat has cured completely, remove any excess aggregates and make sure the surface is clean. Apply a 2<sup>nd</sup> coat of SCI-100 using a rubber squeegee and pass a roller to obtain a uniform coating. Broadcast the quartz aggregates into the wet coating until full saturation is achieved.

### APPLICATION: Top coat (SCI-100)

Once the second coat has cured completely, remove any excess aggregates and make sure the surface is clean. Apply a top coat of SCI-100 using a rubber squeegee and pass a roller to obtain a uniform coating. Repeat this step if a smoother surface is required.

### 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.