Systems data sheet

January 1, 2024
Revision #1

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SCI-Cementitious Polyurethane

DESCRIPTION

SCI-200 CSL is a self-leveling, medium to heavy duty, three-components; water dispersed polyurethane-based cement and aggregate screed system. SCI-200 CSL is designed to protect new or deteriorated floors. SCI-200 CSL provides resistance against compression, abrasion, impacts and chemicals. SCI-200 CSL meets many requirements such as durability, performance, and thermal shock resistance where pressure cleaning at high temperatures is required. This coating offers a choice of anti-slip finish, from very fine to very aggressive, by broadcasting silica sand into the wet coating. This system has been approved by the Canadian Food Inspection Agency (CFIA). SCI-200 CSL also meets FDA and USDA requirements.

This system is composed of:

1. Base coat (SCI-200 CSL) 3/16 - 1/2 inch
2. Option 1 - full broadcast with natural sand
3. Application of topcoat (SCI-200 CP OR SCI-200 CP30)
4. Option 2 - full broadcast with colored quartz aggregates
5. Application of topcoat (SCI-300 MPL)
6. Cove base are optional

PRIMARY APPLICATIONS

- Food processing plants
- Dry or humid food sector
- Refrigerated area/freezers
- Refineries
- Waste treatment plants
- Laboratories
- Areas of light to heavy manufacturing/circulation
- Mechanical room

ADVANTAGES

- Low odor, allows for interior applications without harmful odors
- Thermal shock resistant
- Ideal for correcting and reinforcing concrete surfaces
- Superior compression strength Impact resistant
- Dense surface resistant to bacteria and moisture and easy to clean
- Excellent adhesive properties, allowing for application on a wide variety of substrates

TECHNICAL DATA

Packaging	A: 4.7 kg, B: 4.7 kg, C:20 kg		
Mix Ratio, by volume	A:B:C (mix full units)		
Gel time @ 25° C	15-20 minutes		
VOC G/L	<10		
Shelf Life	12 months unopened		
Full Cure Time	5 days		
Mileage			
¼" thickness	15 ft² / 29.4 kg		
⅛" thickness	30 ft² / 29.4 kg		

PROPERTIES @ 23°C (73°F) 50% R.H.

Tensile Strength	1045 psi		
Concrete Adhesion	300 psi		
Softening Point	130°C (266°F)		
Taber Abraser (CS-17 Wheel 1000g/ 1000 cycles)	0.12 grams loss		
Water Absorption	0.12%		
Specific Gravity	Part A	Part B	Mix
	1.05-1.10	1.22-1.25	-
Hardness, Shore D	82-87		
Flexural Strength	16.2 MPa (2350 psi)		
Coefficient of Thermal	1.6 x 10-5 mm/mm/°C		
Expansion	(0.89 x 10-5 in/in/°F)		

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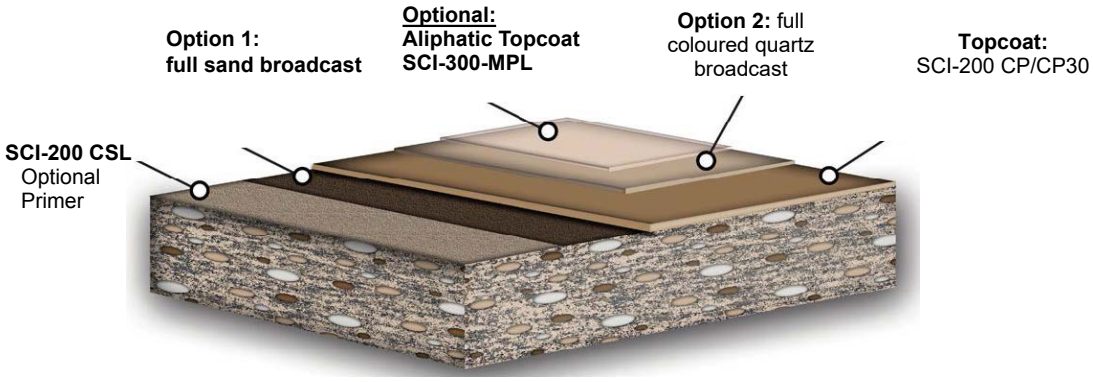
SURFACE PREPARATION	The surface to be coated must be well primed. Remove dust, laitance, grease, oils, dirt, impregnating agents, foreign matter, any previous coatings, and disintegrated substances by mechanical means such as shot-blasting (BLASTRAC) or any other approved method to obtain an ICRI-CSP 3-4 profile. The compressive strength of the concrete must be at least 25 MPa (3625 lbs/in2) after 28 days and the tensile strength at least 1.5 MPa (218 lbs/in2).
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) 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. (Always mix full units)
APPLICATION	**Base coat SCI-200 CSL:** Apply the mixture with a trowel, an adjustable rake, or another suitable tool to achieve the desired thickness. Smooth the coating using a stainless-steel trowel and pass a spiked roller after the coating has settled release any trapped air and to achieve a uniform finish. **Option 1: Sand aggregate broadcast:** Once the spike roller has been passed, immediately broadcast the surface with pre-selected sand aggregates. **Option 2: Coloured quartz broadcast:** For a more architectural finish: Once the spike roller has been passed, immediately broadcast the surface with the colored quartz aggregates. **Topcoat over option 1 (SCI-200 CP):** Clean the cured surface of any excess aggregates using a broom and vacuum and apply a coat of SCI-200 CP using a rubber squeegee and use a roller to obtain a uniform coating. **Option: Topcoat SCI-200 CP30:** Replace the SCI-200 CP with the SCI-200 CP30 for a UV resistant (aliphatic) topcoat. **Topcoat over option 2 (SCI-300 MPL):** Clean the cured surface of any excess aggregates using a broom and vacuum and apply a coat of SCI-300 MPL using a rubber squeegee and use a roller to obtain a uniform coating.



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CLEANING	Clean all application equipment with the water. 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 (unless using SCI-200 CP30). ▪ Do not apply on wet surfaces.
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.