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CS 100-CSL

Self-Leveling Cementitious polyurethane

Description

CS 100-CSL is a self-leveling, medium to heavy duty, three-components, water dispersed polyurethane-based cement and aggregate screed system. Installed at a thickness between 3/16″ to 1/4″ (4.5mm -6mm), CS 100-CSL is designed to protect new or deteriorated floors. CS 100-CSL provides excellent resistance against compression, abrasion, impacts and chemicals. CS 100-CSL meets all kinds of requirements such as durability and performance, as well as thermal shock resistance where pressure cleaning at high temperatures is required. This coating from ICR COATING SYSTEMS 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). CS 100-CSL also meets FDA and USDA requirements.

This system is composed of:

1. Base coat (CS 100-CSL) 4.5-6mm
2. Option 1 - full broadcast with natural sand
3. Application of topcoat (CS 100-CP OR CS 100-CP30)
4. Option 2 - full broadcast with colored quartz aggregates
5. Application of topcoat (CS 100-725)
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
- ✓ Mechanical rooms
- ✓ Areas of high circulation
- ✓ Etc.

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
- ✓ Impermeable and seamless
- ✓ Seamless coves can be shaped using CS 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

ICR COATING SYSTEMS,Tudor Vladimirescu 35A,Otopeni,Romania,075100
office@icrsolution.com
www.icrsolution.com

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TECHNICAL DATA

Packaging		Color			
		Part A	**Part B**	**Part C**	**Mixture**
Self-Levelling Version	CS 100-CSL: 19.4 kg / 42.77 lbs CSL Part A:4.7 kg (10.36 lbs) CSL Part B:4.7 kg (10.36 lbs) CSL Part C:10 kg (22.04 lbs)	3 colors available: Terracotta Grey Beige	Ambre	White	Same as Part A
Trowel Version	CS 100-CT: 14.7 kg / 32.40 lbs CSL Part A:2.35 kg (5.18 lbs) CSL Part B:2.35 kg (5.18 lbs) CSL Part C:10 kg (22.04 lbs)	**Mix Ratio by volume**			
		A : B : C= Mix full units			
		Yield (CS 100-CSL)			
		CS 100-CSL Option 1: 1.4m^2 (15ft^2) per unit at 6mm (1/4^{in}) CS 100-CSL Option 2: 2.8m^2 (30ft^2) per unit at 6mm (1/4^{in})			
Cove Version	CS 100-COVE: 24.7 kg / 54.5 lbs COVE Part A:2.35 kg (5.18 lbs) COVE Part B:2.35 kg (5.18 lbs) COVE Part C:10 kg (22.04 lbs) + 10kg (22.04 lbs) 40 mesh sand + Thixo as needed	**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.*			
		Shelf Life			
Density (kg/litre) (CS 100-CSL)		12 months in original unopened factory sealed container. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards. **Protect from freezing!**			
Part A	**Part B**				
1.10 – 1.25	1.22	**Service Temperature**			
Pot Life (300 g)	**VOC (g/L) WUCT-CSL**	-40°C (-40°F) min. / 120°C (248°F) max.			
		Application Temperature			
15-20 minutes	< 10	7°C (45°F) min. / 30°C (86°F) max.			
Curing Schedule (WUCT-CSL) @ 20°C (68°F) / 1/4^{in} (6mm)		**Foot Traffic**	4-6 hours		
		Light Traffic	10-12 hours		
		Full cure and Chemical Resistance	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.

Adhesion to concrete, ASTM D4541	Softening Point
275 psi (substrate ruptures)	130°C (266°F)
Compression Resistance, ASTM D695	**Abrasion resistance, ASTM D4060**

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24 hours	7 days	28 days	Taber Abraser, CS-17 Wheel 1000g/1000 cycles	
3000 psi	5500 psi	5950 psi	0.12 grams loss	
Water Absorption, ASTM C413			**Tensile Strength, ASTM C307**	
0.12 %			1045 psi	
Coefficient of Thermal Expansion, ASTM D696			**Impact Resistance**	
$1.6x10^{-5}$ mm/mm/°C ($0.89x10^{-5}$ in/in/°F)			6.81 joules (5.02 ft-lb) at 3mm (1/8in) of thickness	
Resistance to Mold Growth, ASTM D3273			**Flexural Strength, ASTM C580**	
Rated 10 (highest resistance)			16.2 MPa (2350 psi)	
Resistance to Fungi Growth, ASTM G21			**Flow**	**Hardness, Shore D**
Rated 0 (no growth)			325 mm (12.80in)	82-87

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).

How to prepare part A and B for the system

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.

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. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

(Always mix full units)

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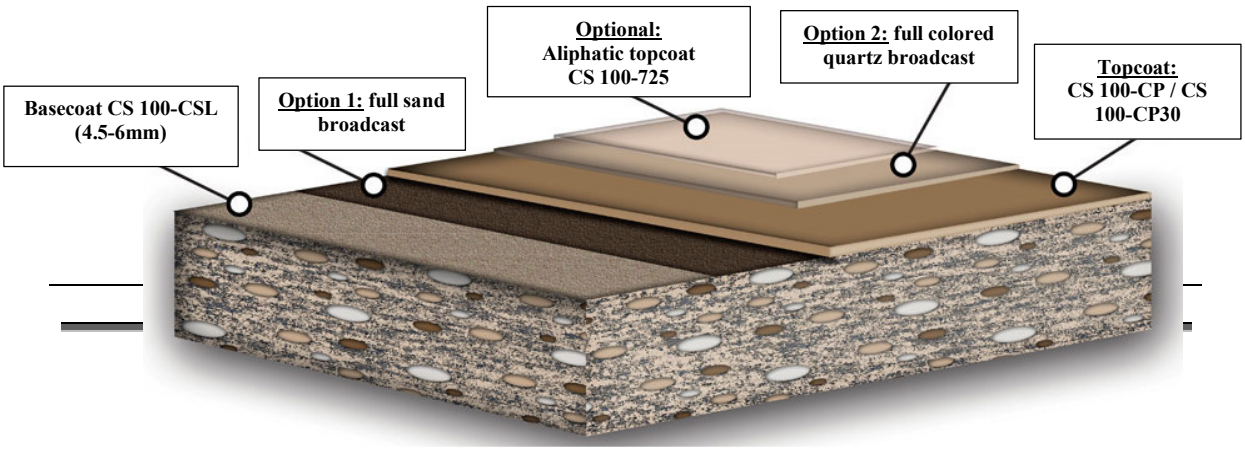
APPLICATION

APPLICATION: Base coat CS 100-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: with sand aggregate broadcast
Once the spike roller has been passed, immediately broadcast the surface with pre-selected sand aggregates.
Option 2: with colored quartz broadcast
For a more architectural finish: Once the spike roller has been passed, immediately broadcast the surface with the colored quartz aggregates.
APPLICATION: Topcoat over option 1 (CS 100-CP)
Clean the cured surface of any excess aggregates using a broom and vacuum, and apply a coat of CS 100-CP using a rubber squeegee and use a roller to obtain a uniform coating.
Option: Topcoat CS 100-CP30
Replace the CS 100-CP with the CS 100-CP30 for a UV resistant (aliphatic) topcoat.
APPLICATION: Topcoat over option 2 (CS 100-725) (thermal shock resistance reduced)
Clean the cured surface of any excess aggregates using a broom and vacuum, and apply a coat of CS 100-725 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 7° C / 45 ° 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
- ✓ The application of this coating on an interior or exterior substrate without a moisture barrier is at risk of detachment (by hydrostatic pressure)
- ✓ Do not apply on a sealed surface
- ✓ Protect the coating from all sources of moisture for a period of 48 hours
- ✓ Surface may discolor in areas exposed to regular ultraviolet light; for UV protection use WUCT-CP30 as a topcoat
- ✓ Color uniformity may vary between lot numbers
- ✓ Do not apply on wet surface

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

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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 ICR COATING SYSTEMS. 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. ICR COATING SYSTEMS no legal responsibility for the results obtained in such cases. ICR COATING SYSTEMS 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.