



# Self-Levelling Epoxy Novolac System Resistant to Crystallization **CS 100-ESP**

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## Description

**CS 100-ESP** is a 100% solid, two component epoxy Novolac coating. Monochrome color with opaque and glossy finish, seamless, and a high covering power, it can be used to restore deteriorated floors or protect new floors. **CS 100-ESP** provides superior chemical resistance. **CS 100-ESP** is also resistant to crystallization which maintains the product clear and free of crystal deposits. This seamless coating from ICR COATING SYSTEMS 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 Canadian Food Inspection Agency (CFIA) and LEED standards.

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## Primary applications

- ✓ Aircraft hangers
- ✓ Assembly areas
- ✓ Classrooms
- ✓ Clean rooms
- ✓ Laboratories
- ✓ Areas of light manufacturing
- ✓ Mechanical rooms
- ✓ Walkways

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## Advantages

- ✓ Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- ✓ Impermeable and seamless
- ✓ 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



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## TECHNICAL DATA

Packaging litres / gal us			Color		
11.34 l / 3	15.91 / 4.2	56.71 / 15	Part A	Part B	Mixture
Recommended Thickness			Upon Request	Clear - Amber	Same as Part A
Primer : CS 100-ESP	8 mils / 200 ft <sup>2</sup> us gal		Shelf Life		
Finish Coat : CS 100-ESP	16 mils / 100 ft <sup>2</sup> us gal		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					
<i>*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.</i>					
CS 100-ESP complies with the following LEED requirements IEQ Credit 4.2: Low emitting materials; Paints and coating SCAQMD Method 304-91 VOC content < 110 g / L					
Pot life (150g)	VOC (g/litre)	Density (kg/litre)			
30 - 35 minutes 25°C	41.77	Part A	Part B	Mixture	
Solids by weight %	Recommended Thinner	Clear : 1.11-1.13	0.9 – 1.0	-	
100%	xylene	Colored : 1.11-1.15	0.9 – 1.0	-	
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 and chemical resistance	10 days	7 days	5 days	
<i>*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.</i>					

## PROPERTIES @ 23°C (73°F) 50% R.H.

<b>Bond Resistance (psi) ASTM D4541</b>		<b>Permeability (%) ASTM D570</b>			
268 (substrate ruptures)		0.3			
<b>Hardness (Shore D) ASTM D2240</b>		<b>Tensile Strength (psi) ASTM D638</b>			
85-90		5500			
<b>Compressive Strength ASTM D695</b>		<b>Elongation (%) ASTM D638</b>			
6800		6.7			
<b>Abrasion Resistance, ASTM D4060 (CS17/1000 cycles/ 1000 g)</b>	Viscosity @ 25 °C (cps)	<b>Part A</b>	<b>Part B</b>	<b>Mixture</b>	
		0.10 gram	clear	1200-1400	200 -400



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	colors	1400-1600	200 -400	1000 -1200
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## 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<sup>2</sup>) after 28 days and the tensile strength at least 1.5 MPa (218 lbs/in<sup>2</sup>).

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## 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.

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## APPLICATION

### APPLICATION : 1st coat of CS 100-ESP

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

### APPLICATION : 2nd coat of CS 100-ESP

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

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## CLEANING

Clean all application equipment with the recommended cleaner (SOLVENT 01). Once the product has hardened, it can only be removed by mechanical means. In case of skin contact, wash thoroughly with warm soapy water.



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## 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.

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## 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. assumes 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.