



# CS 100 CAST

## Clear, Low Viscosity Epoxy Resin for Casting, Potting and Embedment

### Description

**CS 100 -CAST** is a 100% solid, two component, low viscosity epoxy system designed specifically for casting, potting and embedding applications. Low color and low viscosity allow for bubble free, crystal clear castings ideal for art and hobby applications. **CS 100-CAST** meets all kinds of requirements such as durability, performance as well as aesthetics. This seamless casting from ICR COATING SYSTEMS offers a choice of translucent colors. This system has been approved by the Canadian Food Inspection Agency (CFIA). It meets LEED standards.

### Primary applications

- ✓ Casting, Potting and Embedment
- ✓ Coating bar tops
- ✓ Coating Counters
- ✓ Making clear models
- ✓ Jewelry

### Advantages

- ✓ Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- ✓ Excellent optical properties with negligible to no shrinkage on curing
- ✓ 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

## TECHNICAL DATA

Packaging litres / gal us			Color		
11.34 l / 3	15.91 / 4.2	56.71 / 15	Part A	Part B	Mixture
Typical Thickness			Clear- Like Water	Clear – Like Water	Same as Part A
Single Coat : CS 100 CAST	250 mils / 6 - 7 ft <sup>2</sup> us gal 6800 ml/m <sup>2</sup>		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 CAST 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)		
90 minutes 25°C	41.77		Part A	Part B	Mixture



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<b>Solids by weight %</b>	<b>Recommended Cleaner</b>	Clear : 1.11-1.13	0.95 – 0.97	-
<b>Substrate Temperature</b>		<b>10°C</b>	<b>20°C</b>	<b>30°C</b>
<b>Waiting Time /Overcoatability (min / max)</b>		16 / 48	8 / 24	6 / 24
<b>Curing Details</b>		30 hours	24 hours	16 hours
<b>Recommended Full Cure</b>		7 days @ 77°F / 25°C		

### PROPERTIES @ 23°C (73°F) 50% R.H.

<b>Hardness (Shore D) ASTM D2240</b>	<b>Tensile Strength (psi) ASTM D638</b>			
70 - 80	8100			
<b>Compressive Strength ASTM D695</b>	<b>Elongation (%) ASTM D638</b>			
10800	6.5			
<b>Tg Ultimate (DSC, midpoint)</b>	<b>Viscosity @ 25 °C (cps)</b>	<b>Part A</b>	<b>Part B</b>	<b>Mixture</b>
102°F / 39°C	clear	1200-1400	200 - 300	600 - 800

### SURFACE PREPARATION

Remove dust, laitance, grease, oils, dirt, impregnating agents, waxes and any other foreign matter.

### MIXING

The products must be conditioned at a temperature between 18 ° C (65 ° F) and 25 ° C (77 ° F).

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.



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### APPLICATION

It can be poured into a mould. The mould can be a hard mould or made of silicone rubber. Moulding can be carried out by gravity or under vacuum. It does not trap air easily and does not heat up when used properly.

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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

- ✓ The relative humidity of the surrounding work environment during the application of the coating and throughout the curing process should not exceed 70%
- ✓ Protect the casting 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.

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