



# CS 100 - UCLEAR

**Transparent, fully aliphatic, liquid polyurethane membrane for waterproofing & protection**

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## Product

**CS 100 – UCLEAR** is a one component, transparent polyurethane liquid which cures with the air moisture and provides a very much hydrophobic and durable membrane which does not discolor if it stays exposed to sunlight.

The aliphatic, hydrophobic and elastomeric properties of the polyurethane resin result in very good mechanical, UV, thermal and chemical resistance properties.

Apply with roller in one or two coats. Minimum total consumption: 0.3-1.0 kg/m<sup>2</sup> (depends on the application type).

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## Primary applications

- Waterproofing and protection of:
- ✓ tiles and natural stones,
  - ✓ wood,
  - ✓ verandas and balconies,
  - ✓ terraces.
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## Advantages

- ✓ Excellent weather and UV resistance.
  - ✓ Excellent thermal resistance over a wide temperature range. No product softening at temperatures even up to 80°C (max shock temperature 200°C) and remarkable resistance in the cold with film retaining its elasticity even down to -40 °C.
  - ✓ Excellent mechanical properties.
  - ✓ Good chemical resistance.
  - ✓ Water vapor transmission.
  - ✓ No thinning is required but pure xylene may be used.
  - ✓ Can also be applied in thick, bubble-free, coats.
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## TECHNICAL DATA

Packaging (lt)			Color
1	4	20	Transparent
Recommended Thickness			
Main Membrane +/- 0.4 mm per coat			Shelf Life
Solids Content (%)			Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of 5-25 °C. Once a pail has been opened, use as soon as possible.
≥ 75			
<p><b>CS 100 –UCLEAR</b> complies with the following: DIN 53505 / ISO R868, EN-ISO-527-3, DIN 53217 / ISO 2811</p>			
Liquid			
Flash Point (°C) ASTM D93	Viscosity (BROOKFIELD) - cP ASTM D2196-86	Density (kg/lt) ASTM D1475	
40	900-1000	+/- 1.0	
Tack free time, @77°F (25 °C) & 55% RH	Recoating Time (hours)		
6 hours	6-24		
Membrane			
Service Temperature		-40°C to 80°C	
Max shock temperature		200°C	
Curing Details	Foot traffic	12-24 hours	
	Light traffic	3 days	
	Full cure and chemical resistance	7 days	
<p><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></p>			



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<u>PROPERTIES @ 23°C</u>	
Water absorption (%)	Water Vapor Transmission (gr/m2.hr) ASTM E96
< 1.6	0.9
Hardness (Shore D) ASTM D2240	Tensile Strength at Break (N/mm2) ASTM D412
35	> 30
Percent Elongation (%) ASTM D412	Thermal resistance (100 days @ 80 °C) EOTA TR011
> 400	passed
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C) ASTM G53	passed (3000 hours)

## SURFACE PREPARATION

Clean the surface using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. If used for concrete sealing, cement laitance, loose particles, mould release agents, cured membranes must also be removed.

Concrete substrate conditions: Hardness:  $R_{28} = 15\text{MPa}$ , Humidity:  $W < 10\%$ , Temperature:  $5-35\text{ °C}$ ,  
Relative humidity:  $< 85\%$ .

Priming: Priming is required when application is on non-porous substrates, such as ceramic/glazy tiles. In this case, a particular primer is used. It is applied at a low consumption of 50-60 ml/m<sup>2</sup> with a clean cloth without leaving any pools of fluid (apply as if wiping the surface).

For porous substrates such as marble, cotto, natural stones, a fully aliphatic primer should be applied at max 200 ml/m<sup>2</sup>.

## MIXING

Stir well, manually or with a low speed mixer. No thinning is required but pure xylene may be used.



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## APPLICATION

CS 100 – UCLEAR is applied as soon as the primer dries (after 15-20 min) with roller in one or two coats. Do not leave more than 24 hours between coats. In cases of the aliphatic primer application, CS 100 – UCLEAR should be applied not earlier than 12 hours and not later than 2 days.

Minimum total consumption: 0.2-1.0 kg/m<sup>2</sup> according to application type.

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## CLEANING

Clean tools and equipment first with paper towels and then using pure xylene. Rollers will not be re-usable.

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## RESTRICTIONS

- ✓ Not recommended for unsound substrates.
  - ✓ Non-porous substrates, such as ceramic tiles must be primed with a particular primer first.
  - ✓ Porous substrates, such as marble, natural stones must be primed with another aliphatic kind of primer first (consult our technical department).
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## HEALTH AND SAFETY

Contains volatile flammable solvents. Apply in well-ventilated, non-smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. The MSDS (Material Safety Data Sheet) is available on request.

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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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