



CS 100 - U

Liquid Polyurethane membrane for waterproofing & protection

Product

CS 100 - U is a simple and economic solution for waterproofing and protection. It is a one component, low viscosity, polyurethane liquid, which cures with the moisture in the atmosphere to produce a highly elastic membrane with strong adhesion to most types of substrates.

It is based on hydrophobic and pure elastomeric polyurethane resin plus special inorganic fillers, which result in excellent mechanical, thermal, chemical, UV and natural element resistance properties.

Apply with brush, roller or airless spray in two coats. Minimum total consumption: 2 kg/m².

Primary applications

- Waterproofing and protection of:
- ✓ roofs,
 - ✓ light roofing made of metal or fibrous cement,
 - ✓ gypsum and cement boards,
 - ✓ wet rooms (under tiles) ,
 - ✓ bathrooms,
 - ✓ bituminous membranes.
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Advantages

- ✓ Excellent mechanical properties.
 - ✓ Excellent weather and UV resistance. The white color reflects much of the solar energy thereby reducing considerably the internal temperature of buildings.
 - ✓ Excellent thermal resistance, the product never becomes soft. Max service temperature 80 °C, max shock temperature 200 °C.
 - ✓ Resistance in the cold: The membrane remains elastic even down to -40 °C.
 - ✓ Good chemical resistance.
 - ✓ Water vapor transmission: The membrane breathes and there is not any accumulated humidity under the coat.
 - ✓ Non-toxic after full cure.
 - ✓ No thinning is required but pure xylene could be used.
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TECHNICAL DATA

| Packaging (kg) | | | Color | | |
|---|---|----|--|-------|-------|
| 1 | 6 | 25 | White | Grey | Teja |
| Recommended Thickness | | | Upon Request | Beige | Green |
| Main Membrane 0.6-0.7 mm per coat | | | Shelf Life | | |
| Mix Ratio by volume | | | 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. | | |
| N/A | | | | | |
| <p>CS 100 -U complies with the following: ETAG 005, Part 1 & Part 6 Liquid Applied Roof Waterproofing Kit, based on Polyurethane ASTM C 836-95 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/l) ASTM D1475 | | |
| 42 | 3000-6000 | | +/- 1.4 | | |
| Tack free time, @77°F (25 °C) & 55% RH | Recoating Time (hours) | | | | |
| 4 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> | |
|--|--|
| Adhesion to Concrete (N/mm²) ASTM D4541 | Water Vapor Transmission (gr/m².hr) ASTM E96 |
| >2.2 | 0.7 |
| Hardness (Shore A) ASTM D2240 | Tensile Strength at Break (N/mm²) ASTM D412 |
| 65 | >7 |
| Percent Elongation (%) ASTM D412 | Thermal resistance (100 days @ 80 °C) EOTA TR011 |
| >450 | passed |
| QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C) ASTM G53 | passed (2000 hours) |

SURFACE PREPARATION

Clean the surface using a high-pressure washer, if possible. Remove laitance, loose particles, oil, grease, wax contaminants, mould release agents, any cured membranes. Fill surface irregularities with appropriate products.

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

Priming: Apply the required primer following the guidelines above.

MIXING

Use a low speed (300 rpm) mixer. May optionally be thinned with 5-10% pure xylene. For application by spraying (airless) thin with 10% pure xylene.



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APPLICATION

Apply the material with roller or brush in two, at least, coats. Leave 6-24 hours between coats. If more time elapses (e.g. > 4 days) or if you are not certain of the interlayer adhesion, please contact our technical department.

First coat: 0.70-0.80 kg/m².

Second coat: 0.70-0.80 kg/m².

Minimum total consumption: 1.5-kg/m².

CLEANING

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

RESTRICTIONS

- Not recommended for:
- ✓ unsound substrates (in some cases, application is possible with the use of geotextile reinforcement; for more details you may contact our technical department).
 - ✓ waterproofing of swimming pool surfaces in contact with chemically treated water.
 - ✓ **NOTE:** When used for exposed use in dark colors, a protective topcoat of white or grey CS 100 – UEAL is required.
This top coat is also recommended for more colour protection and solar reflectance , even if CS 100 - U is applied in light colours.

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. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

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.