



# CS 100 – U PLUS

**Fast curing, thick layer, one-component, polyurethane liquid membrane for waterproofing and protection**

---

## Product

**CS 100– U PLUS** is a special one-component polyurethane liquid membrane, based on **CS 100 –U** liquid polyurethane and a built-in accelerating agent. This agent is further triggered with the moisture in the air and causes an accelerating curing of the product. The result of this special formulation, is a fast curing liquid product that may be applied in thicker coats and forms a bubble-free waterproofing membrane with very strong mechanical and elastomeric properties.

**CS 100– U PLUS** is ideal to be used in low temperature or relatively low humidity climatic conditions. The results of achieving the minimum required product consumption with only one thicker coat are labor cost reduction due to faster operation and elimination of potential interlayer adhesion failures in multi-coat applications.

Apply with brush, roller or airless spraying Minimum consumption: 1.8-2.2 kg/m<sup>2</sup>.

---

## Primary applications

- Waterproofing and protection of:
- ✓ roofs, verandas and balconies
  - ✓ polyurethane insulation foams
  - ✓ light roofing made of metal or fibrous cement
  - ✓ gypsum and cement boards
  - ✓ asphalt and EPDM membranes
- 

## Advantages

- ✓ Bubble - free membrane without any defects.
  - ✓ Pretty fast skin formation on the membrane within 2-3 hours.
  - ✓ Excellent weather and UV resistance.
  - ✓ Excellent mechanical properties, high tensile and tear strength, high abrasion resistance, good chemical 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.
  - ✓ No thinning is required but pure xylene may be used.
  - ✓ The membrane breathes with no accumulated humidity under the coat.
-



# CS 100 – U PLUS

Fast curing, thick layer, one-component, polyurethane liquid membrane for waterproofing and protection

<b>TECHNICAL DATA</b>						
<b>Packaging (kg)</b>				<b>Color</b>		
1	6	15	25	White	Grey	Red
<b>Recommended Thickness</b>				Upon Request		
Main Membrane +/- 1.5 mm total				<b>Shelf Life</b>		
<b>Mix Ratio by volume</b>				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><b>CS 100 –U PLUS</b> complies with the following:            ETAG 005, Part 1 &amp; Part 6 Liquid Applied Roof Waterproofing Kit, based on Polyurethane            DIN 53505 / ISO R868, EN-ISO-527-3, DIN 53217 / ISO 2811</p>						
<b>Liquid</b>						
<b>Flash Point (°C) ASTM D93</b>		<b>Viscosity (BROOKFIELD) - cP ASTM D2196-86</b>		<b>Density (kg/lit) ASTM D1475</b>		
42		2500-4500		1.35-1.40		
<b>Rain Proof time, @77°F (25 °C) &amp; 55% RH</b>		<b>Recoating Time (hours)</b>				
2-3 hours		6-48				
<b>Membrane</b>						
<b>Service Temperature</b>				-40°C to 80°C		
<b>Max shock temperature</b>				200°C		
<b>Curing Details</b>		<b>Foot traffic</b>		6-12 hours		
		<b>Light traffic</b>		3 days		
		<b>Full cure and chemical resistance</b>		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>						
<b>PROPERTIES @ 23°C</b>						



# CS 100 – U PLUS

**Fast curing, thick layer, one-component, polyurethane liquid membrane for waterproofing and protection**

Adhesion to Concrete (N/mm <sup>2</sup> ) ASTM D4541 >2.2	Water Vapor Transmission (gr/m <sup>2</sup> .hr) ASTM E96 0.7
Hardness (Shore A) ASTM D2240 75	Tensile Strength at Break (N/mm <sup>2</sup> ) ASTM D412 >7
Percent Elongation (%) ASTM D412 >350	Tensile set (after 300% elongation) (%) ASTM D412 <2.5
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:  $5\text{-}35\text{ }^{\circ}\text{C}$ ,  
Relative humidity:  $< 85\%$ .

Priming: Range of primers available for special conditions and substrates.

## MIXING

Use a low speed (300 rpm) mixer. Add pure xylene at 5-10% for application by spraying.



# CS 100 – U PLUS

**Fast curing, thick layer, one-component,  
polyurethane liquid membrane for  
waterproofing and protection**

## APPLICATION

Apply the material with roller, brush or airless spraying in one or two coats. Do not exceed 48 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, please contact our technical department.

Minimum total consumption: 1.8-2.2 kg/m<sup>2</sup>.

## 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.
- ✓ waterproofing of swimming pool surfaces in contact with chemically treated water.
- ✓ consult our technical department for selection of the required proper primer usage.

NOTE: If **CS 100– U PLUS** is going to be used in dark colours for exposed use, an additional protective topcoat of pigmented **CS 100 -UEAL** is obligatory. However, even if **CS 100– U PLUS** will be applied in light colours, the use of **CS 100 –UEAL** is recommended to improve the membrane color protection and to enhance the system's solar reflectance over time.



# CS 100 – U PLUS

**Fast curing, thick layer, one-component,  
polyurethane liquid membrane for  
waterproofing and protection**

## 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 CTM COATINGS EUROPE. 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. CTM COATINGS EUROPE. assumes no legal responsibility for the results obtained in such cases. CTM COATINGS EUROPE. 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.