



Technical Data Sheet

Ecohard WPU 101

Polyurethane Waterproofing Single Component

Description

Ecohard WPU 101 It is a one component, low viscosity, polyurethane fluid that cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces.

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

Ecohard WPU 101 comply with ASTM C 836-95

Applications

Waterproofing and protection of:

- Gypsum and cement boards
- Tiles (under)
- Bathrooms
- Roofs
- Light roofing made of metal or fibrous cement.
- Asphalt membranes
- As the main waterproofing membrane in car park waterproofing system

Advantages

- No thinning is required.
- Excellent weather and UV resistance.
- Excellent thermal resistance, the product never turns soft.
- Max service temperature 80°C, max shock temperature 190°C.
- Resistance in the cold: The film remains elastic even down to -20°C.
- Excellent mechanical properties.
- Good chemical resistance.
- Non-toxic after full cure.

Technical properties

Liquid Form Properties

PROPERTY	SPECIFICATION
Viscosity (BROOKFIELD) ASTM D2196-86, @ 25 °C	3000 – 6000 CP
Specific Weight ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.3 - 1.45 gr/cm ³
Flash Point ASTM D93, closed cup	42 °C
Tack Free Time, @ 77 °F (25 °C) & 55% RH	4 Hrs
Recoat Time	6 – 24 Hrs

Dry Membrane Properties

PROPERTY	SPECIFICATION
Service Temperature	-20 to 80 °C
Max. Temperature short time (shock)	190 °C
Hardness Shore A ASTM D2240 / DIN 53505 / ISO R868	>60
Tensile Strength at break @ 23 °C ASTM D412 / EN-ISO-527-3	>8 (N/mm ²)
Percent Elongation @ 23°C ASTM D412 / EN-ISO-527-3	>400 %
Water Vapor Transmission ASTM E96 (Water Method)	0.8 gr/m ² .hr
Adhesion to Concrete ASTM D4541	>2 (N/mm ²)

Disclaimer:

We hope that the information herein will be helpful. The data is based upon knowledge considered to be accurate and true and is offered for the user consideration, investigation and verification in the application intended. We do not warrant the results or performance attained due to the nature of the influence of other constituent components in the application.



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Method of use

Surface preparation

All surfaces should be sound, clean, dry, and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Ensure that concrete floors are fully cured.

Prepare surface utilizing mechanical preparation method: Grinding, captive blasting, sand blasting to provide suitable profiled open texture surface. If the substrate is restricted to access, utilize preparation by handy mechanical tools. Fill surface irregularities with appropriate products.

Apply the material with roller or brush in at least two coats. Leave 6-24 hours between coats.

Ecohard WPU 101 Can be successfully applied on:

Concrete/steel reinforced concrete or otherwise, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel.

For information about other substrates, please contact our technical department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa
- Humidity: $W < 8\%$
- Temperature: 5-35°C
- Relative humidity: $< 85\%$

Theoretical Coverage

Apply with brush, roller, or airless spraying in two coats, the approximate theoretical coverage:

First coat: 0.75 - 0.9 kg/m²

Second coat: 0.75 - 0.9 kg/m²

Approximate consumption: 1.5 - 1.8 kg/m²

Storage

Can be kept for a minimum of 12 months in the original unopened pails in dry places and at temperature of 5-25°C. Once a pail has been opened, use as soon as possible.

Cleaning

All tools shall be cleaned immediately after application using **Envirocon -Solvent**. Hardened materials must be cleaned mechanically.

Packaging

Ecohard WPU 101 is available in 25kg/Pail.

Remarks

Not recommended for:

- Unsound substrates (in some cases, application is possible with the use of geotextile reinforcement; please contact our technical department for consultations).
- Waterproofing of swimming pool surfaces in contact with chemically treated water.

Cautions

Health and safety

Avoid skin and eye contact by wearing overalls, gloves, goggles, and air-mask etc. Spillage on skin should immediately be removed by thorough washing with water and soap or suitable cleaner. The eyes should be flushed with fresh water.

Avoid inhalation of vapors and paint mist by wearing suitable air-mask. In the event of ingestion and eye contact, seek medical attention immediately. Painting must be carried out in a well-ventilated area.

Smoking in the area should not be permitted. Local safety regulations should be followed.

Fire

Ecohard WPU 101 is flammable.

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