

CLEVERPROOF™ PU110 PLUS-BD

SINGLE COMPONENT, LOW VISCOSITY, POLYURETHANE BASED,
LIQUID WATERPROOFING MEMBRANE FOR BRIDGE DECKS

DESCRIPTION:

CLEVERPROOF™ PU 110 PLUS is a single component, low viscosity, polyurethane based, liquid waterproofing membrane. Creates a durable and elastic layer by curing with the humidity in the air. PU110 PLUS is suitable for application by airless spray due to its low viscosity.

TYPICAL APPLICATIONS:

- ✓ Bridge Decks & Platforms
- ✓ Irrigation Channels
- ✓ Asphalt membranes
- ✓ Car Parks
- ✓ Stadium tribunes
- ✓ Gypsum and cement panels
- ✓ Terraces, verandas and balconies
- ✓ Roofs exposed to UV
- ✓ Wet areas under the coating (bathroom, kitchen, etc.)

FEATURES AND ADVANTAGES:

- ✓ Easy to apply (brush, roller or spray).
- ✓ The product provides a seamless single layer film which prevents leaks.
- ✓ It is resistant to continuous water contact.
- ✓ It maintains its mechanical properties between -40°C and +80°C.
- ✓ It is permeable to water vapor. It is breathable. It does not cause moisture accumulation in the substrate.
- ✓ When the material is damaged, it can be repaired quickly with PU110 PLUS.
- ✓ Provides excellent adhesion to the surface.
- ✓ It has excellent UV resistance.
- ✓ It has excellent chemical resistance.
- ✓ As its white color, it reflects the UV lights and prevent the heat increases of the substrate which is under coating noticeably.
- ✓ It has excellent mechanical properties, tear and tensile strength.
- ✓ Does not contain toxic substances after fully curing.

CONCRETE SUBSTRATE STANDARDS:

- ✓ Hardness R28 : 15 Mpa
- ✓ Humidity : W <5%
- ✓ Temperature : + 5°C and + 35°C
- ✓ Relative Humidity : <85%

For detailed information, please consult our technical department.

APPLICATION PROCEDURE:

SURFACE PREPARATION:

Before the application to ensure a good adhesion oil, grease, paraffin waste, cement grout, loose particles, mold release agents, cured old membranes should be removed from the surface. After washing the surface with high pressure water, it should be free from damp. Surface defects and cracks should be repaired with suitable products.

PRIMING:

Suitable CLEVERPRIME™ primers shall be used for priming. For absorbent surfaces such as concrete, cement or screed where surface moisture is < 5%; use PU PRIMER 200 or EPOXY PRIMER, for moist surfaces; use PU PRIMER 300-2K or EPOXY PRIMER WB and for non-absorbent surfaces such as metal, ceramic or old coatings use EPOXY PRIMER WB GLOSSY.

APPLICATION:

Before using, the package should be opened and mixed with a low speed mixer for 2-3 minutes. For spray application, add Clever 001 at a maximum rate of 5%-7%. The previously primed surface should be applied with a roller or brush until the entire surface is covered, by pouring the product in at least two layers. After the first coat is applied, the second coat should be applied within minimum 6 and maximum 24 hours later. If the application of the second layer has not been made within the specified time, before application please consult to the technical office of CLEVER POLYMERS for information and solutions. If needed, in order to increase the acceleration of the drying process in cold weather, it is recommended to use ACC CATALYST. Consult our technical department for thinning.

APPLICATION REMARKS:

- ✓ It should be covered with PU 650 TC-1K Aliphatic flexible top coat material in order to extend the strength and shelf life of polyurethane-based waterproofing products which are applied to areas exposed to open air conditions or pedestrian traffic.
- ✓ Not recommended for loose and unstable surfaces.
- ✓ It is not used for waterproofing of swimming pools with chemically treated water.

CONSUMPTION:

- ✓ First Layer (min.) : 0,75 - 0,90 kg/m²
- ✓ Second Layer (min.) : 0,75 - 0,90 kg/m²
- ✓ Airless spray (for each layer) : 0,75 - 0,90 kg/m²
- ✓ Total Consumption (min.) : 1,50 - 1,80 kg/m²

CLEANING:

After the application, all tools should be cleaned with Clever 001. Rollers and brushes should be disposed of.

PACKAGING AND COLOR:

It is white color and in 5 kg and 25 kg metal buckets.

STORAGE AND SHELF LIFE:

The product can be stored for a maximum of 12 months in its unopened original package at temperatures between + 5 °C and +25 °C. Opened product should be used as soon as possible.

PRECAUTIONS:

The product should be used in well ventilated environments. The product should not be in contact with open fires. Smoking should not be allowed during application. Protective gloves and masks should be used for hands and eyes during application. If the material comes into contact with eyes, it should be washed immediately with sufficient water. Adequate ventilation is required during application. For more detailed information, ask for the Safety Data Sheet (MSDS) from CLEVER POLYMERS technical department.

TECHNICAL DATA:

QUALIFICATION	METHOD	FEATURE
Coating Type	Clever Lab.	One-component Polyurethane
Density	ASTM D 1475 / EN ISO 2811-1 (+20 °C)	1,30 (±0,05) gr / cm ³
Viscosity	ASTM D 2196-86 / EN ISO 3219 (+25 °C)	2000 - 5000 cp
Water Vapor Permeability	ASTM E96	0,8 gr / m ² hour
Gloss	Clever Lab.	Semi Gloss
Application Temperature	Clever Lab.	+5 °C to +35 °C
Heat Resistance	Clever Lab.	100 days at +80 °C
Shock Heat Resistance	Clever Lab.	200 °C - Passed
Solid Content	Clever Lab.	90% (±5)
Hardness	ASTM D2240, DIN 53505, EN ISO R868	> 60 (Shore A)
Elongation at Break	ASTM D 412 (+23 °C)	> 600%
Tensile Strength	ASTM D 412 (+23 °C)	> 12 N / mm ²
Adhesion to Concrete	TSE EN 1542 (+23 °C)	> 2 N / mm ²
QUV	ASTM G154	2000 hours - Passed
Service Temperature	Clever Lab.	-40 °C to +80 °C
Tack Free Time	25 °C / 55% RH	6 hours
Recoat Time	Clever Lab.	6 to 24 Hours

* Viscosity measured at + 25 °C according to EN ISO 3219 standards. Viscosity increases inversely with temperature.

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