

# HIGHSEAL PU

Cold Applied, Single Component, Solvent Based, Highly Elastic PU Liquid  
Waterproofing



## PRODUCT DESCRIPTION

HIGHSEAL PU is a premium, Single Component, Solvent Based, Liquid-applied, Highly Elastic, Cold Applied Polyurethane Membrane used for long-lasting waterproofing. It creates an excellent elastic and continuously seamless membrane which protects against water ingress for a long-lasting period.

## ADVANTAGES

- Simple Application.
- Resistant to Water.
- Resistant to root penetration, so it can be used in green roofs.
- Crack-bridging up to 2 mm, even at -10°C.
- Excellent moisture resistance.
- High Durability & High Elongation Property.
- Seamless membrane.
- Excellent resistance to weather and U.V. radiations.

## APPLICATIONS

- Concrete/Metal/Asbestos Roof, Bridge/Plaza Decks, Foundations, Basements and Tunnels.
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Balconies, Auxiliary Rooms, etc.
- Waterproofing of Old Bitumen felts, Asphalt felts, EPDM and PVC membranes and Old Acrylic coatings.

## CONSUMPTION

- 1.2 – 1.8 kg/m<sup>2</sup> applied in two or three Coats.
- This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.
- In case of Fabric reinforcement, consumption increases.

## APPLICATION METHOD

### SURFACE PREPARATION

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

### REPAIR OF CRACKS AND JOINTS

- Clean Concrete Cracks and Hairline Cracks, of dust Residue or other contamination. Repair all cracks by cutting "V" Groove and fill with PMC mortar.
- Ensure that the moisture content in the prepared surface does not exceed 5% immediately before application of HIGHSEAL PU.

### PRIMING

Prime the surface using roller or brush and allow the Primer to touch dry. Allow the Primer to cure according its technical instruction.

### APPLICATION

- Stir well before using. Pour the HIGHSEAL PU onto the prepared/Primed surface and lay it out by roller, brush or squeegee, until entire surface is covered. You can use airless spray allowing a considerable saving of manpower.
- After 12-18 hours (not later than 48 hours) apply another layer of the HIGHSEAL PU. For demanding applications, apply a third layer of the HIGHSEAL PU.

### TECHNICAL DATA

PROPERTIES	RESULTS
Specific Gravity	1.20±0.05 @30°C
Solid Content	92 ±2 %
Elongation at Break	> 600 % (ASTM D 412)
Tensile Strength	> 4 N/ mm <sup>2</sup> (ASTM D 412)
Water Vapor Permeability	> 25 gr/m <sup>2</sup> /day (ISO 9932:91)
Resistance to mechanical damage by static impression	High Resistance (class: P3) (EOTA TR-007)
Resistance to mechanical damage by dynamic impression	High Resistance (class: P3) (EOTA TR-006)
Resistance to Water Pressure	No Leak (1m water column, 24h) (DIN EN 1928)
Adhesion to concrete	2.50 ± 0.50 (ASTM D 903)
Crack Bridging Capability	up to 2 mm crack (EOTA TR-008)

Hardness (Shore A Scale)	65-70 (ASTM D 2240)
Resistance to Root Penetration	Resistant (UNE 53420)
Thermal Resistance (80°C for 100 days)	Passed - No significant changes (EOTA TR-011)
UV accelerated ageing, in the presence of moisture	Passed - No significant changes (EOTA TR-010)
Resistance after water aging	Passed (EOTA TR-012)
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change
Construction Material Fire class	B2
Service Temperature	-30°C to +90°C
Shock Temperature (20min)	200°C
Light Pedestrian Traffic Time	18-24 hours
Final Curing time	7 days
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.

#### PACKING

HIGHSEAL PU is Supplied in 25 kg Packing.

#### STORAGE

Store it in a cool, Dry, Clean Place at 4°C - 27°C. In the unlikely event of formation of an easily removable protective skin of HIGHSEAL PU on top during storage, remove the film before applying the material.

#### SHELF LIFE

12 Months in original unopened sealed condition.

#### SAFETY MEASURES

- Avoid contact with skin/Eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapor.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, Seek Medical attention immediately. Do not induce vomiting.

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