



# Waterproofing ISOCRYL PU HYBRID PREMIUM

Technical Data Sheet

Reviewed: 06.06.2020



## DESCRIPTION

**ISOCRYL PU HYBRID PREMIUM** is a one component, premium grade, high performance liquid-applied, hybrid waterproofing membrane based on polyurethane and synthetic acrylic resins. It is suitable for waterproofing old and new building surfaces. It forms an elastic seamless vapor permeable membrane without joints with excellent resistance to humidity, weather conditions as well as high temperatures and UV rays. Due to the innovative hybrid PU-ACRYL technology ISOCRYL PU HYBRID PREMIUM is the most suitable material for high demand applications with long lasting results.

## ADVANTAGES

- 10 years application guarantee – polyurethane technology
- Elastic, seamless, vapor permeable membrane without joints
- Excellent elasticity up to 400% and ability to follow substrate expansion
- Highly reflective to sun UV rays offering thermo insulation advantages
- Superior adhesion on most building surfaces
- Maintains its mechanical properties over a temperature span of -15°C to +70°C
- Excellent resistance to water & ageing
- Bridges small joints – gaps
- The waterproofed surface can be walked on
- User and environmentally friendly - waterbased
- Easy to apply (one component – ready to use material)

## APPLICATIONS

- Waterproofing of rooftops and terraces
- Waterproofing of gutters, domes, cornices, ondulated panels, flowerbeds, planter boxes etc
- Waterproofing bitumen and polyurethane hard foam surfaces
- Suitable for concrete surfaces, bitumen material, wood, stone, brickwork, PVC, polyurethane foam, plaster, plasterboard, metal etc

## INSTRUCTIONS FOR USE

### Substrate preparation

Careful surface preparation is very important for optimum finish and durability.

- The surface needs to be clean, dry, sound and free of any contamination that may harmfully affect the adhesion of the membrane.
- Maximum substrate moisture content should not exceed 5%.

- 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 mechanical means such as a sanding machine. Possible surface irregularities need to be smoothed.

### Repair of cracks

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

1. Clean cracks and hairline cracks, from dust, residues or other contamination.
2. Cracks and joints larger than 2 – 3mm must be primed locally with solvent based primer ISOCRYL PRIMER DUR, or waterbased primer ISOCRYL PRIMER DUR AQUA and allow drying. Fill all prepared cracks with elastomeric acrylic filler FLEX.
3. Bigger cracks and expansion joints must be primed locally with polyurethane primer PRIMER PU 900 and filled with polyurethane sealant BONDFLEX.
4. Small cracks up to 2 – 3mm must be primed locally with solvent based primer ISOCRYL PRIMER DUR, or waterbased primer ISOCRYL PRIMER DUR AQUA and allow drying. Apply locally one coat of ISOCRYL PU HYBRID PREMIUM and on the wet coat dip a fibre net (30gr/m<sup>2</sup>) or fibre tape (60gr/m<sup>2</sup>) 4 - 10cm wide and recoat with **ISOCRYL PU HYBRID PREMIUM**.

### Priming

1. Prime absorbent surfaces like concrete, cement screed, wood with solvent based primer ISOCRYL PRIMER DUR, or waterbased primer ISOCRYL PRIMER DUR AQUA. Allow drying for 2 – 4 hours.
2. Prime non-porous or difficult surfaces (metal, ceramic tiles, plastics) with ADHESIL PRIMER.

### Application

1. Stir product well before use.
2. Pour the **ISOCRYL PU HYBRID PREMIUM** diluted 10 – 15% with clean water onto the primed surface and spread it using a roller or brush, until all surface is covered. You can use airless spray allowing a considerable saving on labour cost. Allow drying for 6 – 18 hours
3. Apply a second layer of **ISOCRYL PU HYBRID PREMIUM** crossways to the first layer, diluted up to max 5%.
4. For extra protection or were required a third layer may be applied.
5. Surfaces can be walked on at least after 48 hours. New treated surfaces exhibit a tackiness at the beginning, which disappears in due time.
6. Application of **ISOCRYL PU HYBRID PREMIUM** must be avoided at temperatures below 8°C and above 35 °C and when frost or rain is expected.

**RECOMMENDATION:** We recommend reinforcement of the entire surface, with the fibre cloth. Use 5-10cm stripe overlapping. If **ISOCRYL PU HYBRID PREMIUM** is applied without the fibre cloth reinforcement we recommend a three-layer application.

**ATTENTION:** Do not apply **ISOCRYL PU HYBRID PREMIUM** over 0.5 mm thickness (dry film) per layer. For best results, the

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temperature during application and curing should be between 5°C and 35°C.

Low temperatures delay curing while high temperatures speed up curing. High humidity may affect the final finish.

## CLEANING

Clean all tools and equipment with water and soap right after applications. Cured material can be removed only by mechanical means.

## COVERAGE

0,8 – 1,2 Lt / m<sup>2</sup> applied in 2 layers

## TECHNICAL CHARACTERISTICS

**Base:** Hybrid polyurethane - Synthetic acrylic resin system

**Form:** Visous liquid

**Colour:** White

**Smell:** Characteristic

**Density:** 1,25 ± 0,02 gr/ml ASTM D-1475

**PH:** 8-9

**Solid content:** 63%

**Water Vapor Permeability:** >15 gr/m<sup>2</sup>/day ISO 9932:91

**Resistance to stagnant water after 7 days:** No difference  
ASTM D-870

**Bending Test (F 2 mm):** No cracks ASTM D-522

**Elongation at Break:** >400% ASTM D-412

**Tensile Strength:** 1,6 N/ mm<sup>2</sup> ASTM D 412

**Resistance to Water Pressure:** No Leak (1m water column,  
24h) DIN EN 1928

**Adhesion to concrete:** >1,7 N/mm<sup>2</sup> (concrete surface failure)  
ASTM D 903

**Hardness (Shore A Scale):** 50 ASTM D 2240 (15")

**Uniformity after 72h at 23 °C:** No water separation or settlement  
after moderate stirring ASTM D-2824

**Consistency:** Good application by spray, roller or brush

**Application temperature:** 5°C έως 35°C

**Light Pedestrian Traffic Time:** 18 hours, 20°C, 50% RH

**Final Curing time:** 7 days, 20°C, 50% RH

**VOC (Volatile Organic Compounds) CONTENT:** (Directive 2004/42/CE) EU maximum VOC content limit values for this product (category A/c(WB): "Exterior walls of mineral substrate"): 40 gr/lit (2010). This product contains maximum 28 gr/lit VOCs (ready for use product).

## STORAGE

Store in dry and cool storage conditions at temperatures 5°C - 35°C. Protect from moisture, frost and direct sunlight.

## SHELF LIFE

At least 18 months in unopened containers. Products should remain in their original unopened containers, bearing the manufacturers batch number.

## PACKAGING

White: 3 Lt, 10 Lt

PACKAGING	CODE	BARCODE
White		
3 Lt	5003	5204094050032
10 Lt	5060	5204094050605

## HEALTH AND SAFETY INFORMATION

**P101:** If medical advice is needed, have product container or label at hand **P102:** Keep out of reach of children **P103:** Read label before use **P501:** Dispose of the contents/containers in accordance with the current legislation on waste treatment **EUH208:** Contains Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one[EC no. 220-239-6] (3:1). May produce an allergic reaction

The directives contained in this technical data sheet are the result of our long experience from real life applications and the research testing of our research and development laboratory and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications, which are beyond our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments. We are liable only for our products for being free from faults and of consistent quality. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. The present edition of this technical datasheet automatically cancels any previous ones concerning the same product.



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