



Waterproofing FLEX MASTER PU HYBRID

Technical Data Sheet

Reviewed: 12.07.2024



DESCRIPTION

FLEX MASTER PU HYBRID is one component, 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.

ADVANTAGES

- Hybrid technology – ponding water resistance
- Elastic, seamless, vapor permeable and reflective membrane without joints
- Excellent elasticity
- Superior adhesion on most building surfaces
- Excellent water - humidity resistance
- Maintains its mechanical properties over a temperature span of -15°C to +70°C
- Excellent resistance to ageing and UV rays
- User and environmentally friendly - does not contain organic solvents
- Simple application – DIY friendly
- Waterbased - nonflammable - easy to clean

APPLICATIONS

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

INSTRUCTIONS FOR USE

Substrate preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect adhesion. Remove any

loose parts. Fresh concrete needs at least 28 days to set. Humidity should not exceed 6%. Previous coatings, grease, plant organisms and dust should be removed with the use of a floor sanding machine and washed with high-pressure water. Surface irregularities must be smoothed out. Loose parts or sanding dust must be removed.

Repair of cracks and joints

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

1. Carefully clean cracks and joints from dust, grease, loose debris.
2. Capillary and small cracks up to 3mm must be primed with **ISOCRYL PRIMER DUR AQUA** waterbased primer or **ISOCRYL PRIMER DUR** solvent-based primer and allow drying. Apply a layer of **FLEX MASTER PU HYBRID**. Immediately apply on wet surface polyester fabric (capillaries) or fiberglass tape (small cracks) 30 – 60 gr/m² respectively and again two more successive layers of **FLEX MASTER PU HYBRID**.
3. Cracks from 3mm to 20mm and expansion joints are primed with **PRIMER PU 900** and then sealed with polyurethane sealant **BONDFLEX 290LM**.
4. Larger cracks and holes are closed – smoothed with the fiber-reinforced repair cement mortar **ISOMIX MECHANIC R4** and after the cement has dried apply polyester fabric and two layers of **FLEX MASTER PU HYBRID**.
5. Assembly points such as water heater bases, air conditioners, stairs, antennas, etc. must be sealed with a thick layer of **ISOCRYL REPAIR** thixotropic, fiber reinforced roof coating and allow drying before proceeding with the application of **FLEX MASTER PU HYBRID**.

Priming

1. Prime absorbent surfaces like concrete and cement screed with solvent based primer **ISOCRYL PRIMER DUR**, or waterbased primer **ISOCRYL PRIMER DUR AQUA**. Allow to dry for 1 - 2 hours.
2. Prime non-porous or difficult surfaces (aluminum, plastics) with **EPOXITE DUR AQUA**.

Application

1. Apply **FLEX MASTER PU HYBRID** on the primed surface diluted 5% - 10% with clean water, using a brush, roller or spray gun. Allow to dry for 8 - 16 hours.
2. Apply a second layer crossways to the first layer, diluted 5% with water.
3. For extra protection or where required a third layer may be applied.
4. Surfaces can be walked on at least after 24 - 48 hours. New treated surfaces exhibit a tackiness at the beginning, which disappears in due time.

For best results, the temperature during application and cure should be between 8°C and 35°C. Application must be avoided when rain or frost is expected. Make sure that the surface temperature is between 5°C and 35°C as direct sun exposure can increase this to more than 50°C.

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RECOMMENDATION: We recommend reinforcement of the entire surface, with fiber cloth, by applying one coat before the reinforcement and 2 coats after. On surfaces with frequent pedestrian traffic, apply a layer of **DRYMAX POLYURETHANE TOPCOAT** after **FLEX MASTER PU HYBRID** to increase abrasion resistance.

ATTENTION: Do not apply **FLEX MASTER PU HYBRID** over 0,5 mm thickness per layer (0,5Lt/m²). For best results, the temperature during application and curing should be between 8°C and 35°C. Low temperatures delay curing while high temperatures speed up curing. High humidity may affect the final finish. Do not apply **FLEX MASTER PU HYBRID** in negative temperatures or when rain or frost is imminent within the next twenty-four hours.

CLEANING

Clean all tools and equipment with water and soap right after application. Cured material can be removed only by mechanical means or varnish and paint remover **MERCOLA STRIPP & CLEAN**.

COVERAGE

1 – 1,5Lt/m² depending on surface absorption and texture

LIFE EXPECTANCY

FLEX MASTER PU HYBRID offers a predicted waterproofing duration of 8 years by strictly following its application instructions (substrate preparation, priming, application) using reinforcing fibernet on the entire surface: 50 – 90 gr/m² and application of the material in at least three layers with a minimum consumption of 1,5 Lt/m² or 1 Lt/m² with an additional coat of the water-based aliphatic **DRYMAX POLYURETHANE TOPCOAT**. Check the quality of the surface regularly, as in case the membrane is damaged locally by dropped objects or other inappropriate use it will have to be repaired locally with the material itself.

TECHNICAL CHARACTERISTICS

Base : Acrylic emulsion modified with aliphatic polyurethane resins

Form: Thixotropic liquid

Color: White

Smell: Characteristic of acrylic emulsion

Density: 1,30 ± 0,05 gr/ml ASTM D-1475

PH: 8-9

Solid content: >50%

Water Vapor Permeability: >19 gr/m²/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: 1,3N/ mm² ASTM D 412

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

Adhesion to concrete: >1,5 N/mm² (concrete surface failure) ASTM D 903

Hardness (Shore A Scale): >42 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: 8°C έως 35°C

Light Pedestrian Traffic Time: 24 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^o-35°C. Protect from moisture, frost and direct sunlight.

SHELF LIFE

At least 24 months in unopened containers. Products should remain in their original unopened containers, bearing the manufacturers batch number.

PACKAGING

White: 3Lt, 9Lt

PACKAGING	CODE	BARCODE
White 3Lt	5274	5204094052746
White 9Lt	5261	5204094052616

HEALTH AND SAFETY INFORMATION

Consult recent Safety Data Sheet before application.

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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