



Waterproofing

PU FLEX 1000

Technical Data Sheet

Reviewed: 26.02.2020



DESCRIPTION

PU FLEX 1000 is one component liquid-applied, permanently highly elastic, polyurethane membrane used for long-lasting waterproofing. Due to the polyurethane technology, it offers the solution to sealing problems where other methods fail, such as on surfaces with standing water and ice. Cures by reaction with atmospheric moisture.

ADVANTAGES

- Life time up to 25 years
- Simple application (1 component – ready to use)
- Forms a walkable uniform seamless membrane
- Resistant to water
- Resistant to frost
- Maintains its mechanical properties over a temperature range of -30°C to +90°C
- Crack-bridging up to 2mm
- Excellent UV resistance
- Water vapour permeability
- The waterproofed surface can be walked on
- Defects can be easily repaired locally within minutes
- Highly cost effective

APPLICATIONS

- Waterproofing of roofs, balconies and terraces
- Waterproofing of wet areas (under-tile) in bathrooms, balconies, kitchens, etc
- Protection of polyurethane foam insulation and alternative insulation panels
- Waterproofing of flowerbeds and foundations
- Waterproofing and protection of concrete constructions like bridge-decks, tunnels, etc.

INSTRUCTION FOR USE

Substrate preparation

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

1. The surface needs to be clean, dry, sound and free of any contamination that may harmfully affect the adhesion of the membrane.
2. Maximum substrate moisture content should not exceed 5%.
3. New concrete structures need to dry for at least 28 days.

4. 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 smoothened.
5. **Clean surface thoroughly.**

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 BOND FLEX.
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 **PU FLEX 1000** and on the wet coat dip a fibre net (30gr/m²) or fibre tape (60gr/m²) 4 - 10cm wide and recoat with **PU FLEX 1000**.

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 well before use.
2. Pour the **PU FLEX 1000** 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 of manpower.
3. After 12 hours (not later than 36 hours) apply another layer of the **PU FLEX 1000**. If necessary apply a third layer of **PU FLEX 1000**.

RECOMMENDATION: We recommend reinforcement of the entire surface, with the fibre cloth. Use 5-10cm stripe overlapping. Reinforce always with the fibre cloth at problem areas, like wall-floor connections, chimneys, pipes, waterspouts (siphon), etc. In order to do that, apply on the still **wet PU FLEX 1000** a correct cut piece of non-woven fibre cloth, press it to soak, and saturate again with enough **PU FLEX 1000**.

ATTENTION: Do not apply **PU FLEX 1000** over 0.7 mm thickness (dry film) per layer. For best results, the temperature during application and cure 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.

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Clean all equipment immediately after use with polyurethane solvent DILX 100

COVERAGE

1,3 – 1,8kg/m² applied in two layers.

TECHNICAL CHARACTERISTICS

Base: Polyurethane resin

Colour: White

Elongation at break: 850 ± 5 % According to ASTM D 412

Tensile strength: 7,5 ± 5% N/ mm² According to ASTM D 412

Water vapour permeability: 25 ± 10% gr/m²/day ISO 9932:91

Resistance to water pressure: No leak (1m water column, 24h) According to DIN EN 1928)

Adhesion to concrete: 2,4 ± 10% N/mm² (concrete surface failure) According to ASTM D 903)

Hardness (Shore A Scale): 60 ± 15% According to ASTM D 2240)

Rain stability time: 3-4 hours (20° C, 50% RH)

Light pedestrian traffic time: 12 - 36 hours (20° C, 50% RH)

Final curing time: 7 days (20° C, 50% RH)

Chemical properties: Good resistance against acidic and alkali solutions (10%), detergents, seawater and oils.

VOC (Volatile organic Compounds) CONTENT: (Directive 2004/42/CE) EU maximum VOC content limit values for this product (category A/i(SB): «One-pack performance coatings»): 500 gr/lit (2010). This product contains maximum 490 gr/lit VOCs (ready for use product).

STORAGE

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

SHELF LIFE

At least 12 months in unopened containers. Products should remain in their original unopened containers, bearing the manufacturers batch number.

PACKAGING

White: 6Kg, 25Kg

Ceramic Red: 6Kg

PACKAGING	CODE	BARCODE
White		
6Kg	68000	5204094051114
25Kg	68001	5204094051121
Ceramic Red		
6Kg	68007	5204094051145

HEALTH AND SAFETY INFORMATION



Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P264: Wash thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P378: In case of fire: Use ABC powder extinguisher to extinguish
P501: Dispose of contents/container according to the separated collection system used in your municipality
EUH204: Contains isocyanates. May produce an allergic reaction.
Substances that contribute to the classification: Xylene

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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