

EVERflow®

Made by MPC



TECHNICAL DATA SHEET

version v.09-12-2024



EVERFLOOR PU

POLYURETHANE MEMBRANE FOR WATERPROOFING AND TRAFFIC COATINGS



A single-component, aromatic, solvent-based polyurethane moisture-cure coating, that creates a seamless, joint-free, and waterproof membrane. This membrane is ideal for use on new or existing structures and can be applied using a short-nap acrylic wool roller, a notched trowel, or specialized electric equipment.

For application in the following situations:

- Sloped/flat walkable roofs, balconies, and overhangs
- Green roofs/terraces
- Bridge-deck liquid applied waterproofing
- Structural concrete slabs, concrete walls, and foundations
- Swimming pools, artificial lakes, and ponds



Technical and chemical properties

Density ISO 1675 Viscosity ISO 2555	1.40 ±5 g/cm ³ 2,500-6,000 cps
Solids Content ISO 1768 VOC content	80-90% 210-270 g/L
Application thickness	1.5 mm (60 mils) applied as 2 coats of 0.7 mm (30 mils)
Product Yield	126 ft ² / pail (for 2 coats) *depending on application method and conditions
Initial dry time Recoat time	5-6 hours dry to maximum 48 hours
Application temperature range (substrate and environment) Use temperature range (environment)	3-35°C (37-95°F) -20-80°C (-4-176°F) Maximum environment humidity 80%
Application method	short-nap acrylic wool roller, a notched trowel, or airless equipment
Packaging and color	25 kg (55 lbs.) Available in white (RAL 9003) and grey (RAL 7038)
Storage and shelf life	12 months in original containers in a dry environment 5-35°C (41-95°F). Keep away from direct sunlight, extreme heat/cold or moisture. Once opened, product must be used completely.

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Surface preparation for cement/concrete substrates:

Remove dust, dirt, grease, oil, and all other contaminants with proper cleaner/degreaser. Prepare the surface mechanically as per ICRI-CSP2 profile by diamond grinding to ensure removal of laitance, curing agents and sealers. The compressive strength of a newly poured concrete substrate must be at least 25 MPa (3635 psi) after 28 days of cure and at least 1.5 MPa (218 psi) tensile strength. Be careful with condensation (at least 3 degrees of the dew point). All cracks, holes and irregularities must be repaired with a crack filler prior to applying the coating.

Application method (classic application)

Open the container and mechanically mix the product using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture. Apply the first layer with a short nap roller, ensuring a maximum thickness of 0.7 mm (30 mils). The material should be applied undiluted. Allow it to dry completely (drying time may vary depending on weather conditions, approximately 5-6 hours). Once dry, apply the next layer in the same manner. Repeat this process as needed to reach the desired or recommended thickness. Once dried, apply an aliphatic polyurethane resin for UV protection.

Application method (airless 'spray' application)

Open the container and mechanically mix the product using a low-speed drill (300-450 rpm) to reduce air entrapment and to obtain a homogeneous mixture. Add 5~10% recommended solvent into container. Apply thin layers using airless equipment. Allow it to dry completely (drying time may vary depending on weather conditions, approximately 5-6 hours). Once dry, apply the next layer in the same manner. Repeat this process as needed to reach the desired or recommended thickness. Once dried, apply an aliphatic polyurethane resin for UV protection.

Membrane repairs / overlaps

In cases where the membrane requires repair due to accidental damage or incorrect assembly procedures, follow these steps:

- Cut and remove the affected or damaged area.
- If recoat time has been exceeded the 24-48 hour period, sand a strip along the longitudinal overlap, approximately 20-30 cm wide.
- Clean the area by vacuuming up any debris (powder, dust, etc.). If possible, avoid using water. Use ketone-based solvents for surface cleaning.
- Apply a thin layer (100-150 g/sqm) of polyurethane resin primer (such as EVERPRIME PU).
- Lightly spread silica sand over the wet primer.
- Allow the primer to fully dry.
- Apply the membrane while following the same application procedure.
- Once dried, apply an aliphatic polyurethane resin for UV protection.

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Physical and Technical properties for use as a roof and waterproofing coating

Working life (according to the EOTA and BBA)	W3 25 years (1.2 mm minimum thickness)
External fire performance, EN 13501	Broof classification (t1) + (t4)
Fire reaction, EN 13501	Euroclass E
Climatic zone	S (hard weather)
Water vapor resistance, EN 1931	$\mu = 2.455$
Water vapor permeability, EN 1931	14 g/sqm/day
Roof slope	S1~S4, zero slope, ponding water admitted
Temperatures / user loads	P4:TH2//P3:TH4, concrete / P1:TH2,PU (Spray polyurethane foam)
Anti roots certification, EN 13948	PASS

Physical and Technical properties for use as a membrane

Initial tensile strength, ASTM D412	593 psi
Initial tensile strength (at 90 days @ 70C / 158F) Final tensile strength G-154 accelerating weathering 500 h	582 psi 695 psi
Tensile strength initial modulus @ 100% 200% 300%, ASTM D638	567 psi 262 psi 180 psi
Initial elongation at break, ASTM D412	507 %
Final elongation at break, 90 days @ 70C / 158F) G-154 accelerating weathering 500 h	486 % 391 %
Hardness Shore A D, ASTM D2240:2015	86 33
Water absorption % mass, ASTM D570	2.7%
Water permeance, ASTM E96	1.7 perms
Puncture resistance, ASTM D4833	37 lbf
Resistance to chloride ion penetration	Pass (0.008 %)
Abrasion resistance (H18 wheel, wear index H22 wheel, wear index), ASTM D4060	2,477 mg 1,719 mg
Crack bridging, ASTM C1305	No cracks after 10 cycles at -26C (-15F)
Pull-off strength on steel concrete, ASTM D4251	514 psi 502 psi

*Results were performed in a laboratory setting at 23°C (73°F) and 50% RH, under controlled conditions. These values may vary depending on the application, climatology, or substrate conditions.

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General specification and restrictions

- Single-component, moisture-cured, solvent-content liquid polyurethane that once applied, forms a continuous, seamless, highly elastic and wear-resistant, aromatic, waterproofing, and solid membrane.
- The system holds an ETA 10/0121, issued by EOTA (European Organization for Technical Assessment) under the EAD 030350-00-0402, specific approval for "Liquid Applied Roof Waterproofing based on polyurethane" working life 25 years (W3), at 1.2 mm. membrane thickness (DFT), ponding water admitted.
- The system holds an ETA 21/0734, issued by EOTA (European Organization for Technical Assessment) under the EAD 030675-00-0107, specific approval for "Liquid Applied Bridge-deck Waterproofing based on polyurethane", at 1.2 mm. membrane thickness (DFT), ponding water admitted.
- The system holds a BBA certification n 16/5340 (validation on UK market and influenced) for "Waterproofing of walkable roofs" at 1.2 mm thickness (DFT), ponding water admitted.
- The system holds a green roof application certified, root resistance, according to the EN 13948 (ETA 10/0121 and BBA 16/5340).
- It should be applied in dry conditions, ensuring that there is no moisture present on the surface to be coated or the substrate, either at the time of application or afterward (such as pressure from the phreatic water level ('hydrostatic')). If there is moisture in the substrate at the time of application, the process should be adjusted accordingly.
- The system requires solar radiation protection (UV rays) to do not lose its physical and mechanical properties, given that it is an aromatic membrane.

Warranty and disclaimer

Everflow® warrants that our products are free from manufacture defects in accordance with our quality control procedures. Any products proven defective are limited to the replacement of defective products or refund of the purchase price as determined by Everflow®. Please contact your local Everflow® sales representative for more information and warranty requirements.

The information and recommendations contained in this technical data sheet are based on reliable test results according to Everflow®. The data mentioned are specific to the material indicated. If used in combination with other materials, the results may be different. It is the responsibility of the user to validate the information therein and to test the product before using it. Everflow® assumes no legal responsibility for the results obtained in such cases. Everflow® assumes no legal responsibility for any direct, indirect, consequential, economic or any other damages except to replace the product or to reimburse the purchase price, as set out in the purchase contract.