

Perma-Flex

**Rapid- curing aliphatic polyurethane
Waterproofing for flat roofs.**

Description

Perma-Flex is a fast-drying, one-component, aliphatic polyurethane waterproofing coating designed specifically for roofs. Perma-Flex dries rapidly, allowing for recoating in just **2 hours**, and facilitates the full completion of the waterproofing system in a single day. It demonstrates resistance to rain within just **30 minutes** of application. The coating forms an impermeable membrane that provides high resistance to UV radiation and mechanical stress.

Fields of Application

- Roofs of concrete, cement tiles, and timber.
- Walkable roofs.
- Roofs requiring high resistance to ponding water.
- On GRP & existing liquid membranes.
- On Existing bitumen and single-ply membranes.
- Metal roofs.
- Fibre cement roofs.

Advantages

- Fast track installation: touch dry in as little as 1 hour.
- Resistant to rain: 30 minutes from application. *
- High elongation and mechanical strength.
- Excellent resistance to ponding water.
- Ideal solution for walkable roofs.
- Long-lasting resistance to UV radiation.
- Increased hardness and crack-bridging properties.
- Can be applied on a damp surface (not fully wet).
- Ecofriendly & user-friendly, with low VOCs and low odour.
- No wastage (stays fluid after opening).
- **Long service life, product guarantees -20 years.**



Application conditions

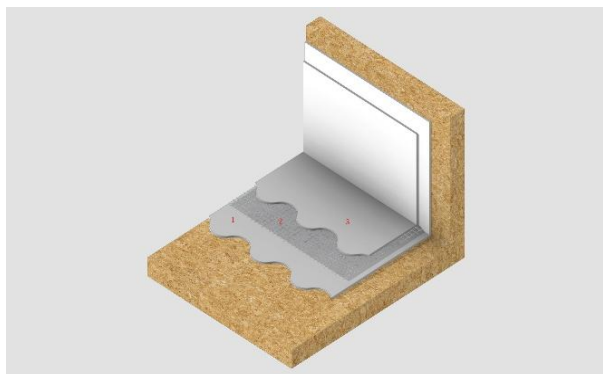
Substrate moisture content	<6%
Relative air humidity (RH)	<80%
Application temperature (ambient - substrate)	+5°C min. / +40°C max.

Curing details

Drying time (RH 50%)	+10°C	100-120 minutes
	+23°C	45-60 minutes
	+35°C	20-30 minutes
Dry to recoat (RH 50%)	+10°C	3 hours
	+23°C	2 hours
	+35°C	1 hour
Resistance to early rain (RH 50%)	+10°C	40 minutes
	+23°C	30 minutes
Resistance to early rain (RH 70%)	+40°C	40 minutes
Full hardening	~ 7 days	

* Low temperatures and high humidity during application and/or curing prolong the above times, while high temperatures reduce them

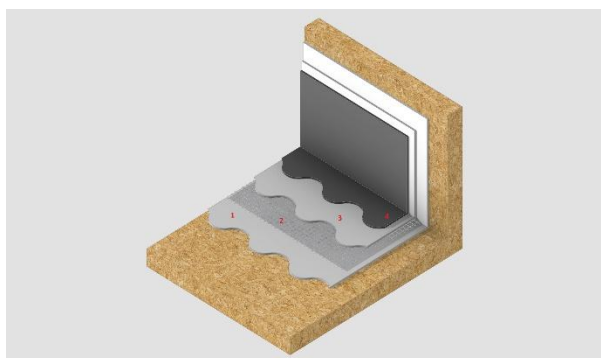
**The above times for drying, recoating and early rain resistance refer to layer application of avg. consumption 600gr/m²



20-year system on OSB/PLY

1. Perma-Flex
2. Reinforcement mat
3. Perma-Flex

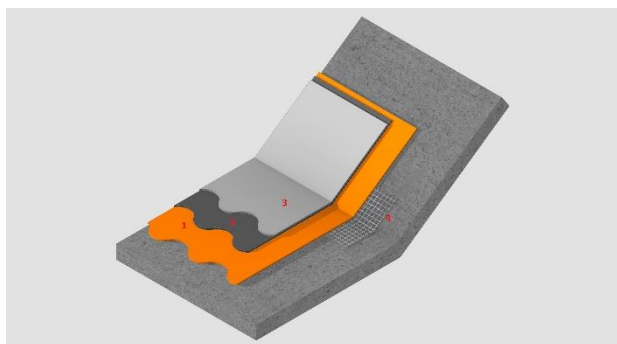
Consumption 1.2-1.8 kg/m²



25-year system on OSB/PLY

1. Perma-Flex
2. Reinforcement mat
3. Perma-Flex
4. Perma-Flex

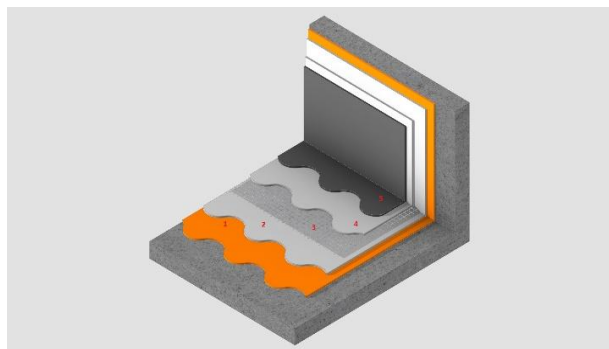
Consumption 1.8-2.4 kg/m²



Concrete substrate

1. Primer
2. Perma-Flex
3. Perma-Flex
4. Reinforcement tape

Consumption 1.2 kg/m²



Concrete substrate fully reinforced membrane.

1. Primer
2. Perma-Flex
3. Reinforcement mat
4. Perma-Flex

Consumption 1.8 kg/m²

Primer consumption 150-200 gram/m²

Technical characteristics

Density (EN ISO 2811-1)	1,40kg/L (±0,1)
Elongation at break (ASTM D412)	350% (±30)
Tensile strength at break (ASTM D412)	2,20MPa (±0,20)
Tensile strength at break (reinforced with Neotextile®, ASTM D412)	>4,5MPa
Adhesion strength (EN 1542)	>2,0N/mm ²
Hardness Shore A (ASTM D2240)	68
Liquid water permeability (EN 1062-3)	<0,1kg/m ² h ^{0,5}
Permeability to CO ₂ – Diffusion-equivalent air-layer thickness Sd (EN 1062-6)	>50m
Water vapour permeability – Diffusion-equivalent air-layer thickness Sd (EN ISO 7783)	7,8m (Class II)
Accelerated UV ageing in the presence of moisture (UVB-313, 4h UV @60°C + 4h condensation @50°C, ASTM G154)	Pass (>1000 hours)
Service temperature	-15°C min. / +80°C max.
Total Reflectance SR% (ASTM C1549)	82% (white)
Infrared Emittance (ASTM E408)	0,96 (white)
Solar Reflectance Index SRI (ASTM E1980-11)	104 (white)
Consumption: 1-1,2kg/m² for two layers (cementitious surface)	

Cleaning of tools – Stains removal	By water immediately after application. In case of hardened stains, by mechanical means
Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AcWB: 40g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <40g/l
UFI code	CH14-90SV-P002-53F4
Versions	<p>Neoproof® PU W, water-based aliphatic polyurethane waterproofing coating</p> <p>Neoproof® PU Fiber, fiber-reinforced waterproofing coating</p> <p>Neoproof® PU W -40, with resistance to extremely low temperatures down to -40°C</p> <p>Neoproof® PU360, for non-exposed surfaces</p> <p>Neoproof® PU Fast -30, fast-drying, with resistance to early rain and to low temperatures down to -30°C</p>
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight