

YHPUroof-8105

One-Component Exposed Polyurethane Waterproof Coating



Technical Data Sheet (TDS)

DESCRIPTION

YHPUroof-8105 is a single-component, cold-applied, moisture-cured, UV-resistant, seamless, and rubber-like polyurethane roof waterproofing membrane. It is especially designed for cost-efficient roof waterproofing and is suitable for both new construction and refurbishment projects.

WHERE TO USE

YHPUroof-8105 is especially designed as a cost-efficient, exposed or concealed waterproofing membrane for flat or pitched roofs, suitable for both new construction and the refurbishment of existing roofs.

CHARACTERISTICS AND PACKAGING

Item	Data
Appearance	Viscous Liquid
Viscosity/cp	7000±2000
Color	Grey
Density/kg/L	1.45-1.55
Solid Content by Weight	89-92 %
Pot life/h	3
Packing Size	20 kg per metal pail

ADVANTAGES

- Cold-applied and moisture-cured; no mixing, heating, or flame required.
- One material for both horizontal and vertical areas.
- Maintains elasticity even at low temperatures.
- Good adhesion to most substrates.
- Easy application by squeegeeing or spraying.
- Weather- and UV-resistant.

PROPERTIES

Description	Test Methods	Typical Values
VOC / (g/L)	ASTM D2369	≈170
Tensile Strength / (MPa)	ASTM D412	≥2.5
Elongation at Break / %	ASTM D412	≥450
Tear Strength / (N/mm)	ASTM D624	≥17
Pull-off Adhesion to Concrete / (MPa)	ASTM D7234	≥1.2
Shore A Hardness	ASTM D2240	≈60
Water Penetration Test (5 bar, 3 days)	DIN 1048-5	No Penetration
Low Temperature Flexure (-35°C)	ASTM D522	No Cracks
Set-to-Touch Time / h	ASTM D1640	≈4

Note: The above data were tested under standard conditions (temperature 23 °C ± 2 °C, relative humidity 50% ± 10%).

APPLICATION INSTRUCTIONS

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Application information

Items	Description
Consumption*	1.6-1.8 kg / m ² for 1mm dry film
Coverage	8-9 m ² /set (20kg) at 1.5mm dry film thickness
Recommended thickness	1.4-1.6 mm by 2 coats 1.3-1.4 kg / m ² / coat at 0.7-0.8 mm dry film thickness
Ambient air temperature	5 °C min / +40 °C max
Relative air humidity	<85%
Substrate temperature	5 °C min. / +40 °C max. ≥ 3 °C above dew point, beware of condensation

*Material consumption depends on the porosity and texture of the substrate.

Application Instructions

Substrate Preparation:

The concrete substrate should be clean, dry, sound, and free of all contamination such as dirt, oil, and grease. Surface defects such as blowholes and voids must be repaired. Filling of joints and surface leveling must be carried out before coating. It is recommended to use an epoxy primer to block the cementitious substrate for coating pinhole prevention. In many scenarios, diluting 1 part YHPUroof-8105 with 1-2 parts xylene may serve as a primer. Priming of good-quality and dense concrete is not necessary.

Detailing:

Firstly, install the coating at detail spots such as deformation joints, water outlets, and concave/convex corners. Install fabric reinforcement between two wet coats to ensure thorough penetration. The total thickness of the composite coating layer should be at least 1 mm.

Coating Application:

It is recommended to apply two coats to build the required thickness. Apply each coat using a notched squeegee or trowel, and backroll using a phenolic resin core roller. For areas with limited accessibility, a brush is more appropriate. Extend the coat over the entire area, including previously detailed joints and cracks. Recoat time is normally less than 24 hours, while low temperature or humidity may extend the waiting time.

Post-Treatments:

Seal the coating edges with a UV-resistant sealant if necessary. For general non-exposed projects, a protective layer of concrete can be laid on the waterproof coating after a successful watertight test.

TRANSPORTATION AND STORAGE

The product should be stored in ventilated places, with no exposure to sunlight, rain, or fire. Avoid collisions during transportation. The storage temperature should be between 5°C and 30°C. The shelf life is at least 9 months under normal transportation and storage conditions.

PRECAUTIONS

- YHPUroof-8105 is not recommended for direct contact with water in permanent immersion applications.

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- Always dilute YHPUroof-8105 with high discretion. Impurities in an unknown thinner may impede coating curing.
- Apply YHPUroof-8105 only when ventilation is effective. For indoor applications, assess conditions carefully, as solvent-free YHPUcoat-8130 is more recommended.
- Do not apply near the air intake vent of a running air circulation system.
- Direct application on bituminous materials may result in coating discoloration and/or bituminous material softening.
- Do not apply YHPUroof-8105 on porous substrates with rising temperatures or moisture.
- Do not apply YHPUroof-8105 directly on plastic drinking water pipelines.

HEALTH AND SAFETY

Please read the safety manual carefully, our security experts will be pleased to give you advises about safety, health and environmental issues.

DISCLAIMER

The above information and recommendations which are based on our experience are as for reference, they can't replace the customers' own experimental results. Since our company, our representatives or distributors can't control the transportation, storage, handling and use conditions of the products, the economic disputes and the quality accident caused by improper use can't be attributed to our suggest. In any application, the customer shall be responsible to comply with obligations of third-party intellectual property rights. Without our consent, anyone shall not provide technical information to third parties.