

DESCRIPTION

YHPUcoat-8101 is a single-component, cold-applied, moisture-cured aromatic polyurethane waterproofing membrane. It cures to form a seamless, elastic, moisture resistant, and durable waterproofing film.

WHERE TO USE

YHPUcoat-8101 is recommended as general non-exposed waterproofing solutions in both new construction and refurbishment projects. It is ideal for applications under tiles, mortar protection layers, or in general non-exposed waterproofing projects such as balconies and terraces. It offers cost efficient life cycle extension of failing polyurethane or cementitious waterproofing coatings.

CHARACTERISTICS AND PACKAGING

Item	Data
Appearance	Viscous Liquid
Viscosity / cp	5000±2000
Color	Black, Grey, White, Green, Red
Density / (kg/L)	1.50-1.60
Solid Content by Weight / %	89-92
Pot Life / h	3
Packing Size	25 kg per metal pail

ADVANTAGES

- Cold-applied and moisture-cured; no mixing, heating, or flame is required.
- Easy recoating when needed, with no stripping required.
- Maintains elasticity even at low temperatures.
- Provides good adhesion to most substrates.
- Easy application by squeegeeing or spraying.

PROPERTIES

Description	Test Methods	Typical Values
VOC / (g/L)	ASTM D2369	≈155
Solid contents by weight / %	ASTM D2697	≈92%
Tensile Strength / (MPa)	ASTM D412	≥2.0
Elongation at Break / %	ASTM D412	≥450
Tear Strength / (N/mm)	ASTM D624	≥18
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
Water Vapor Transmission / (g/m ² ·24h)	ASTM E96	≈12
Low Temperature Flexibility (-35°C)	ASTM D522	No Cracks

Crack Bridging (-26°C) / mm	ASTM C835	≈3.2
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

Application information

Items	Description
Consumption*	1.7-1.8 kg / m ² for 1mm dry film
Coverage	9-10 m ² /set (25kg) 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 contaminants, 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 seal the cementitious substrate and prevent coating pinholes. In many scenarios, diluting 1 part YHPUcoat-8101 with 1–2 parts xylene may serve as a primer. Priming is not necessary for substrates in good condition.
- **Detailing:** First, apply the coating to detail areas such as deformation joints, water outlets, and concave and 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 achieve the required thickness. Each coat should be applied using a notched squeegee or trowel, and then backrolled using a phenolic resin core roller. For areas with limited accessibility, a brush is more appropriate. The coating should be extended over the entire area, including previously detailed joints and cracks. The recoat time is normally 12 to 24 hours; however, low temperatures or low humidity may extend the waiting time.
- **Post-treatments:** Seal the coating edges with sealant if necessary. For waterproofing below tiles, after the last layer of coating has cured, apply another coat of YHPUcoat-8101 and broadcast it with quartz sand to create a bonding bridge. After removing loose and excessive sand, apply tile adhesives and bond the tiles to the coating surface. For other general non-exposed projects, a protective layer of concrete can be laid over the waterproof coating after a successful flood test.

TRANSPORTATION AND STORAGE

The product should be stored in ventilated areas, protected from sunlight, rain, and fire. Avoid collisions during transportation. The recommended storage temperature range is 5°C to 30°C. The shelf life is a minimum of 12 months under normal transportation and storage conditions.

YHPUcoat-8101

One-Component Polyurethane Waterproof Coating



Technical Data Sheet (TDS)

3 / 3

PRECAUTIONS

- YHPUcoat-8101 is not recommended for direct contact with water intended for permanent immersion.
- Always dilute YHPUcoat-8101 with caution. Impurities in unknown thinners may impede coating curing.
- Apply YHPUcoat-8101 only in areas with effective ventilation. For indoor applications, assess carefully and consider using solvent-free YHPUcoat-8130 as a more suitable alternative.
- Do not apply YHPUcoat-8101 near the air intake vents of operating air circulation systems.
- Direct application on bituminous materials may result in coating discoloration and/or softening of the bituminous material.
- Water that has come into contact with cured YHPUcoat-8101 is prohibited for drinking and aquaculture purposes.
- Do not apply YHPUcoat-8101 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.