YHPAroof-8532

Two-Component Polyaspartic Waterproofing Coating

DESCRIPTION

YHPAroof-8532 is a two-component, chemically cured, low-VOC, aliphatic polyaspartic polyurea waterproofing membrane designed for use as a pedestrian and vehicular traffic-bearing top coat. It can be applied alone or as a top layer over a high-performance aromatic polyurethane base coat, such as YHPUcoat-8200/8400.

WHERE TO USE

YHPAroof-8532 should only be used by experienced professionals. It is highly recommended as a pedestrian and vehicular traffic-bearing top coat in waterproofing projects, including multi-story parking garages, stadiums, and arenas. It can also be used in scenarios with long-term water immersion and/or water scour, such as outdoor swimming pools and water parks.

CHARACTERISTICS AND PACKAGING

Item	Data	
	Clear	Tinted
Color	-	Grey, White, Blue, Red, Green, Yellow
Appearance	Viscous Liquid	
Mixing Ratio by Weight	A:B=2:1	A:B=1:1
Density/kg/L	A: 1.03-1.10; B: 1.00-1.10	A: 1.03-1.10; B: 1.30-1.45
Viscosity/mPa·s	A: 1200±300; B: 1400±100	A: 1200±300; B: 800±100
Solid Content by Weight	94-97 %	
Pot life (23 °C, 50%Rh)	50-60 minutes	
Package Size	A: 9 kg/pail; B: 4.5 kg/pail	A: 6 kg/pail; B: 6 kg/pail

ADVANTAGES

- Outstanding resistance to abrasion and wear.
- Low viscosity. Easy application by spraying, roller, brush and squeegee.
- Excellent crack-bridging properties and flexibility, even at low temperatures.
- Resistant to water, deicing salts, diluted acid and alkaline.
- Good adhesion to most substrates.
- Super UV-resistance and color retention.
- Longer pot life compared with other plural-component high performance waterproof coatings.

PROPERTIES

Description	Test Methods	Typical Values	
		Clear	Tinted
VOC / g/L	ASTM D2369	≈75	≈94
Tensile Strength / MPa	ASTM D412	≥13	≥15
Elongation at Break / %	ASTM D412	≥450	
Tear Strength / N/mm	ASTM D624	≥70	
Pull-off Adhesion to Concrete / MPa	ASTM D7234	≥2.5	

Shore A Hardness	ASTM D2240	≈90	≈95
Taber abrasion (750 g, 500 r, CS-10)	ASTM D4060	≈15 mg	≈12 mg
Taber abrasion (1000 g, 1000 r, CS-17)	ASTM D4060	≈30 mg	≈25 mg
Water Penetration Test (5 bar 3 days)	DIN 1048-5	No Penetration	
Low Temperature Flexibility (-35 °C)	ASTM D522	No Cracks	
Set-to-Touch Time / h	ASTM D1640	≈1.5	

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

APPLICATION INSTRUCTIONS

Application information

Items	Clear	Tint
Mixing ratio by weight	A:B=2:1	A:B=1:1
Consumption*	1.0-1.1kg for 1mm dry film	1.2-1.3kg for 1mm dry film
Coverage	12.0-13.5 m^2/set (13.5kg) at 1.0 mm dry film	6.0-6.5 m^2/set (12kg) at 1.5 mm dry film
Recommended thickness	1mm by 3 coats 0.3-0.35kg/m^2/coat	1.5mm by 3 coats 0.6-0.7kg/m^2/coat
Ambient air temperature	5 ℃ min / +40℃ 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 substrate should be clean, dry, sound, and free of all contamination, such as dirt, oil, and grease. Concrete surface defects, such as blowholes and voids, must be repaired. The concrete should be cleaned and prepared to achieve a laitance-free, open-textured surface by blast cleaning or other mechanical means, if necessary. Filling of joints and surface leveling must be completed before coating. It is recommended to use an epoxy primer to seal the cementitious substrate, prevent coating pinholes, and enhance adhesion.
- **Mixing:** Premix YHPAroof-8532 Part A and Part B separately before combining. Add Part B to Part A in the stipulated mixing ratio, and mix using a mechanical mixer at medium speed until a homogeneous mixture with uniform color is achieved. Take care to avoid whipping air into the material to prevent pinhole blisters or a shortened pot life.
- **Detailing:** First, apply the coating to detail areas such as construction joints, water outlets, and concave and convex corners. For wide cracks, use sealant to skin over the surface, and install fabric reinforcement between two wet coats to ensure thorough penetration and full embedment. The total thickness of the composite coating layer should be at least 1 mm.
- **Coating application:** Apply at the recommended coverage rate using a notched squeegee or roller. Spraying with a single-component sprayer after mixing is possible, but be mindful of the pot life. Extend the coat over the entire area, including previously detailed joints and cracks. The recoat time is typically

6–18 hours, though low temperatures may extend the waiting time. If slip resistance is required, apply a 0.2–0.4 mm thick wet film to the installed and cured coat, and broadcast dried aggregate onto the still-wet coat. Back-roll the surface to encapsulate the aggregate in YHPAroof-8532 resin. Alternatively, add 10 wt% of 160–200 mesh quartz sand to YHPAroof-8532 and mix thoroughly. Then, apply a 0.2–0.3 mm thick coat on a tack-free YHPAroof-8532 surface to serve as the anti-slip top layer.

- Post-treatments: Seal the coating edges with UV-resistant sealant if necessary.

TRANSPORTATION AND STORAGE

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

PRECAUTIONS

- Opening the surface to traffic before curing may result in permanent staining, loss of aggregate, and subsequently premature failure.
- Do not thin with solvents.
- Be mindful of dew point temperatures. Use YHPrimer-2000 for priming damp concrete substrates.
- Be cautious of substrate out-gassing effects when priming or coating during rising temperatures.
- Mockups are highly recommended to verify application methods, substrate conditions, and desired skid resistance and aesthetics.
- Apply YHPAroof-8532 only when ventilation is effective. Avoid applying near the air intake vent of a running air circulation system.
- When applying over existing coatings, compatibility and adhesion tests are necessary. Be aware of long-term durability, as the existing coating layer may deteriorate over time.
- Direct application on bituminous materials may result in coating discoloration and/or softening of the bituminous material. It is recommended to use mortar or an epoxy primer to block bituminous migration.
- Do not apply YHPAroof-8532 directly on plastic drinking water pipelines.

HEALTH AND SAFETY

Please read the safety manual carefully. Our safety experts will be pleased to provide you with advice on 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.