

DESCRIPTION

YHShield-7501 is a high-performance, APP-modified bituminous waterproofing membrane manufactured from premium bitumen modified with selected polymers, and reinforced with a strong, resilient, non-woven spun-bonded polyester fabric. The modification process enhances its flexibility, strength, and resistance to harsh environmental conditions. It features excellent heat resistance and good mechanical performance. The membranes are available in a variety of thicknesses in smooth and granule surfaces. It provides an economical and effective solution when applied over existing substrates to address roof leakage issues.

WHERE TO USE

It is used as a waterproofing membrane for protection of various substrates in a wide range of applications, including:

- Waterproofing and damp-proofing of basements subject to permanent water submersion and damp soils, including pile capping and foundations.
- Waterproofing of retaining walls.
- Waterproofing on flat roofs under protective layers or ballast.
- Waterproofing on balconies, terraces and wet rooms under screed / tiles.
- Exposed waterproof membrane with opaque mineral granules as upper surface isolation material is used.

CHARACTERISTICS AND PACKAGING

Items	Description
Packaging	Roll
Width (m)	1
Thickness (mm)	3±0.2, 4±0.2, 4.5±0.2, 5±0.2
Length (m)	10
Roll Size (m ² /roll)	10
Upper Surface Material	Polyethylene film (PE), Sand (S) and Mineral granules (M)
Lower Surface Material	Polyethylene film (PE)

ADVANTAGES

- Excellent resistance to hydrostatic water.
- High puncture and fatigue resistance strength.
- High temperature stability.
- Excellent water and vapor resistance.
- Strength is reinforced with a high-quality non-woven polyester fabric.

PROPERTIES

Technical Data Sheet (TDS)

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Items	Test Methods	Values
Tensile Strength(L/T)[N/50mm]	EN 12311-1	850±20%/750±20%
Elongation at break (L/T)[%]	EN 12311-1	35±15/40±15
Resistance to Static Loading(20kg)	EN12730 Method B	Pass
Tensile Shear at Joint [N/50mm]	EN12317-1	650±20%
Resistance to Tearing(L/T) [N]	EN12310-2	300±30%/250±30%
Heat resistance @120°C	EN 1110	Pass
Low Temperature Flexibility (0°C)	EN 1109	No crack
Water Absorption [%]	ASTM D5147	≤2.5
Adhesion of granules [%]	EN12039	≤3.0
Watertightness (Method B: 24 hours at 60kPa)	EN 1928	Pass

Note: All values are based on test results determined under laboratory conditions and with product samples taken from original stock. Independent laboratory test values are available upon request.

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 application.
- **Priming:** Apply YHBituprimer-4035 (water-based bituminous primer) or an equivalent to a clean, smooth, and dry surface using a brush, roller, or spray. Allow it to dry before applying the membrane. The primer's low viscosity of the primer enables it to penetrate concrete pores, enhancing membrane-substrate adhesion between the membrane and substrate. It also binds any remaining dust particles on the concrete surface, while binding residual surface dust particles.
- **Detailing:** Install strengthening layer at critical areas such as inside and outside corners, construction joints, pipe penetrations, eaves gutters, and expansion joints. Pre-cut the membrane to the required size and shape before application.
- **Membrane application:** Unroll the membrane to release stress and position it according to the layout lines. Use a torch to heat the underside of the membrane and the substrate surface. When the bitumen on the membrane becomes shiny and molten, roll out the membrane while continuing to heat. Then, use a roller to press firmly and remove trapped air, ensuring a secure bond with the substrate. CAUTION: Do not over-torch as this will expose the reinforcement in the membrane and damage the membrane.
- **Overlap treatment:** The overlap width of the membrane should be 100mm. Heat-seal the overlap area separately using the torch-applied method. At the seams between adjacent membranes, allow the modified bitumen to overflow slightly, with a uniform width of about 3-5mm.

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 not exceeding 50°C. The shelf life is a minimum of 12 months under normal transportation and storage conditions.

PRECAUTIONS

Read the product label and Material Safety Data Sheet (MSDS) before using it. Users should acquaint themselves with all risks & safety regulations and conform to manufacturer's recommendations, material handling and storage specifications.

- Do not carry out construction during rain, snow, or strong winds (level 5 or higher); the ambient temperature should not be below 0°C.
- Any naked flame should be kept well away from the gas cylinders. When ignited, the torch should be watched at all times. The torch should not be rested on finished roofing. Extreme care should be taken when working near combustible materials or items that might be scorched by the gas flame. All local authorities' safety regulations should be strictly followed.
- Ensure even heating within the application width. The distance between the torch nozzle and the membrane surface should be appropriate, with uniform heating across the width until the membrane surface becomes shiny and black. Do not overheat the membrane, and maintain the surface temperature below 200°C during torch application.
- For high vertical applications, implement measures to prevent sliding and use sealant for edge sealing.
- Ensure complete safety and protective measures at the construction site and place fire-fighting equipment as required.
- Use liquefied gas, ethanol as fuel, or hot air for welding during application.

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 suggestions. 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.