

DESCRIPTION

YHShield-7601 is a torch-applied, root-resistant bituminous waterproofing membrane incorporating a chemical root inhibitor. It is formulated with distilled bitumen modified by elastoplastic polymers to enhance durability and resistance to high and low temperature. It is reinforced with a non-woven polyester fabric, which gives high mechanical resistance, excellent puncture and tear resistance. Both faces are coated with polyethylene film to ensure ease of application. The membrane demonstrates excellent chemical resistance of humid acids and fertilizers, allowing the membrane to be indirect contact with the soil or environments at risk of root penetration. Its robust composition effectively prevents root ingress while maintaining waterproof integrity, ensuring long-term performance in green roof application.

WHERE TO USE

The Product is used as a waterproofing membrane for: Flat and sloping roofs under protective layers or ballast, inverted roofs, and roof gardens, but it is not recommended for roofs permanently exposed to UV radiation.

CHARACTERISTICS AND PACKAGING

Item	Data
Packaging	Roll
Width (m)	1
Length (m)	10
Thickness (mm)	4
Roll Size (m ²)	10
Top Surface Material	PE film
Under Surface Material	PE film

ADVANTAGES

- Good resistance to root penetration.
- Good resistance to humid acids and fertilizers.
- Resistant to aggressive mediums in natural ground water and soil.
- Low vapor transmission.
- High temperature stability and low temperature flexibility.
- Good resistance to mechanical impact.
- Good dimensional stability.

PROPERTIES

Description	Test Methods	Values
Tensile Strength (MD/CD) [N/5cm]	EN 12311-1	800/800
Elongation at break (MD/CD), [%]	EN 12311-1	40/45
Watertightness (30min 0.3MPa)	EN 1928 method B	Pass
Heat / Flow Resistance (105℃)	EN52123 / DIN EN 1110	No Flow

Low-temperature flexibility (-10°C)

EN 1109

No crack

Note: The above data were tested under standard conditions (temperature $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$, relative humidity $50\% \pm 10\%$).

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 YHPrimer-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

- 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

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SBS Root-Resistant Torch-on Membrane



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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 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.