

KITOFLEX 4S & 5S 180



Al Khalidiya
Water Proofing & Insulation Co. LLC

Description

KITOFLEX 4S & 5S are high-quality torch-applied membranes reinforced with a core of either fiber-glass or non-woven polyester, featuring a nominal weight as specified in the technical data. These membranes are rot-proof and highly malleable. Manufactured from premium-grade heavily modified bitumen, the membrane exhibits excellent mechanical properties, allowing for good elongation and high resistance to piercing. It combines the ability to withstand high ambient temperatures with the typical characteristics of an SBS membrane. The special feature of the membrane is its high malleability, making it entirely suitable for challenging basement and foundation works, capable of withstanding thermal shocks, accommodating structural movements, and resisting chemical attacks.

The waterproofing compound used in KITOFLEX membranes is a high-performance elastomeric material that blends the ability to endure high ambient temperatures with the typical characteristics of distilled bitumen modified with SBS thermoplastic rubber. This formulation is based on radial elastomers, synthetic rubber, and stabilizing aggregate fillers.

Uses

To offer waterproofing solutions for:

- » Foundations & Basements
- » Roofs & Terraces
- » Pile Capping & Footings
- » Tanking
- » Car park
- » Abutments & Swimming Pools
- » Airport Aprons & Ramp Areas
- » Concrete retaining structures

Advantages

- » Creates a robust barrier against water and dampness.
- » Demonstrates exceptional resistance to aging and atmospheric elements.
- » Maintains remarkable flexibility during application, even in sub-zero temperatures, without experiencing physical strain.
- » Preserves shape stability even under high temperatures.
- » Can be directly torched over old shingles or existing bituminous membranes.
- » Adapts to structural movements and withstands thermal shock.
- » Easily applied using a torch.
- » Forms strong bonds with the substrate.
- » Conforms readily to contours.
- » Resists chemical attacks from soil or water effectively.

Properties

Values

Membrane Thickness (+/- 5%) (ASTM D751)	4mm	5mm		
Mass per unit area	4.7 kg/m ²	5.7 kg/m ²		
Reinforcement	180 g/m ² polyester			
Softening Point (ASTM D36)	>135°C			
Penetration @ 25 Deg C Of Coating Mixture (ASTM D5)	30 – 40 dmm			
Flexibility at low temperature (ASTM D5147)	-5°C	to	-10°C	
Tensile strength (L/T) (ASTM D5147)	900/800 N/5cm			
Elongation Of Membrane (L/T) (ASTM D5147)	50 / 55 %			
Tear resistance (L/T) (UEAtc)	270 / 270 N			
Lap joint strength (L/T) (ASTM D5147)	800/800 N/5cm			
Puncture Resistance (UEAtc), Static Dynamic	L4 I4			
Water absorption (ASTM D570)	<0.15 %			
Dimensional stability at +80C (L/T) (ASTM D5147)	±0.5 % ±0.5 %			
Water vapor transmission (ASTM E96)	< 0.50 g/m ² /24h			
Resistance to ageing due to UV radiation (ASTM G53)	No signs of deterioration after the test			

FEATURES

It comes with a lap line for Slated and Aluminium membranes, with the option available for PBS or Sand. Depending on client specifications, it can be supplied in various grades such as -10°C, -15°C, -20°C, -25°C, or according to ASTM D6164. Manufactured in accordance with EN13707 standards.

The top surface offers a choice between a thin Polyethylene film (PBS), fine sand (Sand), natural grey or pigmented slates, Aluminum, or geotextile. Meanwhile, the bottom surface is coated with a thin Polyethylene film for easy torching (a sand bottom is also available upon request).

Method of Application

SURFACE PREPARATION:

Concrete surfaces must be devoid of any cavities and protruding nibs. They should be completely dry and uncontaminated, free from frost and surface laitance.

PRIMING:

For applications on concrete, tiles, or any other porous surface, apply KITOPRIME SB (a solvent-based bituminous primer according to ASTM D41) at a rate of 4-5m² per liter onto the substrate. Ensure thorough drying of this coating. In periods of high humidity, it is advisable to let it dry overnight.

APPLICATION:

The KITOFLEX membranes should first be unrolled and positioned correctly. Each roll should overlap the adjacent roll by 10cm. Once the roll has been positioned correctly, the membrane should be rolled up again, taking care not to change its orientation. Using left to right movements, heat the lower surface of the membrane with a propane gas torch. This will cause slight surface melting and the molten bitumen will adhere to the surface.

Next, torch the side overlap to the recommended size of 100mm. Continue with the same method for consecutive rolls, ensuring that end laps are a minimum of 150mm. It's essential to inspect lap joints thoroughly to ensure total adhesion.

Tools and Equipment

The application of the KITOFLEX membrane necessitates only a few essential tools: propane gas torches with their corresponding gas cylinder, a knife for precisely cutting the membranes to size, and a trowel with a rounded end. It is imperative to wear protective gloves and goggles while using the gas torch.



Packing

KITOFLEX 4P & 5P	: 10m long x 1m wide roll
KITOPRIME SB	: 20 & 200 Ltr Drums

Limitation

Keep stored in a shaded warehouse below 30°C, away from heat sources and direct sunlight.

Storage

All products maintain a shelf life of 12 months when stored in a cool, dry environment, away from heat sources, within their original unopened packaging. It is recommended to store them horizontally, not exceeding one pallet in height.

Health & Safety

If KITOPRIME is swallowed, do not induce vomiting; instead, drink a glass of water. In case of contact with eyes, flush with copious amounts of clean water for at least 15 minutes and seek medical advice. If it comes into contact with the skin, remove any contaminated clothing and thoroughly wash the skin. For more detailed information, please refer to the Material Safety Data Sheets for the aforementioned products.

Product Disclaimer:

Kito products are guaranteed against defects in materials and manufacturing, and their sale is governed by our standard Conditions for the Supply of Goods and Services. The technical information provided has been meticulously compiled, and to the best of our knowledge, it is accurate and true as of the leaflet's printing date. However, continuous development efforts may lead to variations based on factors such as raw material availability, client specifications, and environmental conditions. The actual technical specifications may differ from those outlined herein, as we reserve the right to make changes, modifications, or improvements without prior notice.

All recommendations and suggestions are made in good faith and are intended for general guidance only. We do not imply or provide any warranty regarding application, as conditions of use and associated labor are outside our control.



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