

## SBS ANTIROOT

INSUTECH SBS ANTIROOT is an elastomeric Modified Bitumen Membrane used for waterproofing roof gardens and green areas. It is manufactured in a high-tech calendaring process, which involves the saturation and coating of a heavy-duty polyester carrier with a SBS elastomer-modified bitumen compound. Anti-root additives are included in the compound to allow the membrane to better resist the piercing force created by the growth of roots. This compound, thanks to its special formula, features an excellent resistance to UV ray ageing and allows the membrane to be walked on during application. The SBS modifiers are used to improve the thermal, chemical and ageing properties of the bitumen compound. Meanwhile, the mechanical characteristics such as tensile strength, elongation and tear resistance are boosted by the non-woven polyester carrier, which acts as reinforcement to the product.

## SURFACE FINISH

The lower surface of the membrane is laminated with a thin thermo-fusible polyethylene 'burn-off' film. The membrane is available with a wide range of upper surface finish options including different colored slates, aluminum foil, sand and polyethylene film.

## KEY FEATURES

- Excellent resistance to root penetration
- Absolute impermeability to water
- Thermal resistance under a wide range of temperature fluctuation
- Excellent U.V. resistance
- Ease of adhesion to a wide variety of surfaces.

## APPLICATION

INSUTECH SBS ANTIROOT membranes are used for a wide variety of waterproofing applications where resistance to roof penetration, high mechanical stresses and constant movement are required, such as:

- roof gardens & green areas
- terraces
- roofing or re-roofing for single or multi-layer systems
- sloped and flat roofs.

## STORAGE

All Modified Bitumen Membranes should be stored in an upright position in a dry, flat and ventilated storage area away from direct sunlight.

## INSTALLATION

Please refer to the Insutech Applicator Guide for complete instructions on the application of the product.

TEST	UNIT	TEST METHOD	RESULTS			الإختبار
			INSUPOLY ANTIROOT	INSUPRO ANTIROOT	INSUPRENE ANTIROOT	
Cold Temperature Flexibility	°C	ASTM D-5147, EN - 1109	-15 -18	-18 -23	-23 -27	المرونة عند درجات الحرارة المنخفضة
Thickness	mm	EN 1849-1	4	4	4	السُمك
Roll Width	m	EN 1848-1	1	1	1	العرض
Roll Length	m	EN 1848-1	10	10	10	الطول
Straightness	mm	EN 1848-1	± 5	± 5	± 5	الاستقامة
Softening point (R&B)	°C	ASTM D- 36	120	120	120	درجة الليونة
Penetration @ 25 °C	dmm	ASTM D- 5	35	35	35	درجة الغرز عند 25 °C مئوية
Penetration @ 60 °C	dmm	ASTM D- 5	120	120	120	درجة الغرز عند 60 °C مئوية
<b>TENSILE STRENGTH (MAX)</b>						<b>مقاومة الشد القصوى</b>
Longitudinal	N/5cm	EN 12311-1	900	1000	1100	طولياً
Transverse	N/5cm	EN 12311-1	550	650	700	عرضياً
<b>ELONGATION @ BREAK</b>						<b>أقصى معدل للإستطالة</b>
Longitudinal	%	EN 12311-1	45	50	50	طولياً
Transverse	%	EN 12311-1	50	55	55	عرضياً
<b>TEARING STRENGTH ( NAIL-SHANK )</b>						<b>مقاومة التمزق</b>
Longitudinal	N	EN 12310-1	160	250	260	طولياً
Transverse	N	EN 12310-1	180	320	340	عرضياً
Resistance To Static Loading	kg	EN 12730	15	20	20	مقاومة الإختراق الإستاتيكي
Resistance To Impact	mm	EN 12691	1000	1250	1250	مقاومة الإختراق الديناميكي
Heat Flow	°C	ASTM D-5147, EN - 1110	110	110	110	الخواص الحرارية
<b>DIMENSIONAL STABILITY</b>						<b>ثبات الأبعاد</b>
Longitudinal	%	EN 1107-1	-0.2	-0.5	-0.5	طولياً
Transverse	%	EN 1107-1	0.2	+0.5	+0.5	عرضياً
Water Tightness	60 Kpa	EN 1928:2000	pass	pass	pass	مقاومة نفاذية الماء
Water Absorption	%	ASTM D-5147, UNI - 8202/22	≤1	≤1	≤1	درجة إمتصاص الماء
Vapour Permeability	μ	EN 1931	60,000	60,000	60,000	درجة نفاذية بخار الماء
Joints Tensile Strength Shear L/T	N/5cm	EN 12317	900 / 550	1000 / 650	1100 / 700	مقاومة الشد عند مناطق التوصليل
Thermal Ageing in air (in oven at 70 ± 2°C) for 4 weeks	-	EN 1296	4 weeks passed	4 weeks passed	4 weeks passed	الإهتراء نتيجة التسخين
Average Loss of Slates	%	EN 12039	-	-	-	متوسط الفاقد من حبيبات المينرال

- Given test results are based on 4mm thick specimens
- Tolerances for all the above values are according to relevant UEAtc Guidelines
- Insutech reserves the right to modify product specifications due to customer request and/or continuous product development without any prior notice
- This product does not contain any dangerous substances.
- This publication revokes any previous one. Issue. 2/ © 2018