

HIGH PERFORMANCE ANTI-ROOT APP MODIFIED BITUMEN WATERPROOFING MEMBRANE FOR ROOF GARDENS AND TERRACES

PRODUCT DESCRIPTION:

Pro-Struct 1002 is a waterproofing membrane manufactured in an advanced continuous calendaring process by saturating and coating a robust composite carrier with a waterproofing compound made of a special grade of bitumen, which is modified with polymers and special anti-root chemical additives. While the polymers (APP) enhance the thermal, mechanical and ageing properties of the membrane compound, the mechanical characteristics of Pro-Struct 1002 are established by the composite carried made of non-woven polyester armoured with fiberglass filaments, which act as the reinforcement that provides the membrane with the profound mechanical properties of the polyester and the prominent dimensional stability of glass fibre mat.

The upper surface of Pro-Struct 1002 is covered with an anti-adhesive finish material while the lower face is laminated with a thermo-fusible polyethylene film.

USES:

Due to its special anti-root properties, Pro-Struct 1002 is particularly suitable for roof gardens, terraces, planters and all waterproofing applications where membrane is subject to root penetration.

MAJOR FEATURES:

Pro-Struct 1002 is a membrane specially designed to resist root puncture. This feature has been achieved by adding a special chemical additive to the bitumen compound that gives the membrane the ability to resist roots and prevent its penetration without losing any of its premium waterproofing characteristics. Even in direct contact with soil, Pro-Struct 1002 does not transfer any polluting elements or present any algacide or bactericide effects.

PACKAGING:

Roll size: 10m x 1m

SURFACE FINISH:

The lower surface of Pro-Struct 1002 is laminated with a thermo-fusible polyethylene film, while the upper surface is covered with a fine sand finish.

SURFACE PREPARATION AND PRIMING:

Surfaces must be clean, sound and dry. All surfaces must be free from oils and grease and laitance removed from cementitious surfaces. **Pro-Struct 201** is a one-part solvent-based bituminous primer and is ready for use. Application must be done by brush or roller. Primer must be allowed to dry completely prior to overcoating to prevent entrapment of solvents.

APPLICATION:

Pro-Struct 1002 is usually applied by using a propane torch. The substrate surface must be clean, dry, smooth and free from any irregularities. A coat of Pro-Struct 201 Primer will be required prior to the application of the membrane. Pro-Struct 1002 should be applied to the substrate as a fully bonded system. Side laps should be from 8 to 10cm, while end laps should be from 12 to 15cm.

STORAGE:

Pro-Struct 1002 rolls should be kept in an upright position in a flat, properly ventilated and sheltered storage area.

APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

Properties		Test	Unit	Test Method	Tolerance	Pro-Struct 1002
Dimensional Properties		Thickness	mm	EN-1849-1	± 5%	4
		Weight (Mass per Unit Area)	kg/m²	EN-1849-1	± 10%	-
		Determination of Width	m	EN-1848-1	± 1%	1
		Determination of Length	m	EN-1848-1	± 1%	10
		Straightness (Ortometry)	mm	EN-1848-1	-	± 10
Compound Properties		Softening Point (R&B)	°C	ASTM D-36	Min	150
		Compound Elongation	%	UNI 8202/8	± 15%	-
Membrane Properties	Mechanical Properties	Tensile Strength – Longitudinal	N/50mm	EN-12311-1	± 20%	1050
		Tensile Strength – Transverse	N/50mm	EN-12311-1	± 20%	650
		Elongation at Break – Longitudinal	%	EN-12311-1	± 15%	35
		Elongation at Break – Transverse	%	EN-12311-1	± 15	40
		Tearing Strength – Longitudinal (nail shank)	N	EN-12310-1	± 30%	275
		Tearing Strength – Transverse (nail shank)	N	EN-12310-1	± 30%	350
		Tensile Tear Resistance – Longitudinal	N	ASTM D-5147 D-4073	± 30%	850
		Tensile Tear Resistance – Transverse	N	ASTM D-5174 D-4073	± 30%	450
		Resistance to Static Loading	kg	EN 12730 Method A	Min	25
		Dynamic Puncturing (impact resistance)	mm	EN 12691 Method B	Min	1000
	Thermal Properties	Flow Resistance at Elevated Temperatures	°C	EN-1110	Min	120
		Flexibility at Low Temperatures ⁽¹⁾	°C	EN-1109	-	-15 to -10
		Dimensional Stability	%	EN-1107-1	Max	± 0.3
		Water Impermeability – Watertightness at Low Pressure	60 KPa	EN-1928 Method A	-	Passed
		Water Impermeability – Watertightness at High Pressure ⁽²⁾	KPa	EN-1928 Method B	Min	500
	Miscellaneous Properties	Water Absorption	%	ASTM D-5147	Max	< 1
		Vapour Permeability	µ	EN 1931	Min	70000
		Fatigue Resistance on Cracks	200 cycles	UNI 8202/13	-	Passed
			500 cycles		-	Passed
		Shear Resistance of Joints – Longitudinal	N/50mm	EN-12317-1	± 20%	1050
		Shear Resistance of Joints – Transverse	N/50mm	EN-12317-1	± 20%	650
		Thermal Ageing in Air (<i>in oven 28 days at 70°C</i>)	-	UNI 8202/26	-	Passed
		Ageing due to Atmospheric Agents (<i>UV test weathering</i>)	-	ASTM G-53 UNI 8202/29	-	Passed
		Fatigue Resistance at Joints	200 cycles	UNI 8202/32	-	Passed
			500 cycles		-	Passed
		Fire Classification – External Fire Performance	Class	EN 13501-5 / ENV 1187	-	B Roof (t2)
		Reaction to Fire	Class	EN 13501-1	-	E
		Adhesion of Granules	%	EN-12039	Max	≤ 30
		Adhesion to Concrete (<i>torch applied</i>)	N/50mm	Pelage UEAtc	-	20
		Resistance to Root Penetration	-	EN-13948	-	Passed
Supply Data		Weight	kg/m²	-	-	3 to 6
		Thickness	mm	-	-	2 to 5
		Roll Length	m	-	-	10
		Roll Width	m	-	-	1
	Surface Finish – E: Polyethylene Film S: Sand					
		Upper Surface Finish	-	-	-	S
		Lower Surface Finish	-	-	-	E

The declared average values represent the best performance achieved at the present state of our knowledge. StonCor Africa reserves the possibility to change, without warning, the technical characteristics in order to make the product more responding to the application requirements. The choice of the type of membrane for the kind of use is at the purchaser's discretion.

Tolerances for the above values if not mentioned are according to the UEAtc directives:

- 1) Exact value depends on thickness of the product
- 2) Deviating from the standard method. This assessment is made in 1 hour test, 4mm or 4.5kg/m² products.

CAUTION: MAY CONTAIN FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRONIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NON-FERROUS TOOLS AND TO WEAR CONDUCTIVE AND NON-SPARKING SHOES.



StonCor Africa (Pty) Ltd
Co. Reg. No. 1996/001848/07
Tel: +27 (0) 11 254 5500
Website: www.stoncor.co.za
E-mail: stoncora@stoncor.com