Product Description

Insuwrap PVC underground waterproofing membrane **1500 TNL** is a calendered high polymer waterprooofing membrane, (thickness 1.50mm) not compatible with bitumen, manufactured to the highest international standards offering high physical properties and long term durability. **Insuwrap 1500 TNL** is manufactured using the best raw materials produced by SABIC.

Test	Standards	Standard Requirements	Results, 1500 TNL
Membrane Thickness (mm)	DIN 16938	+10%	1.50
Tensile Strength	DIN 16938	>15N/mm² longitudinal transversal	> 17.00 N/mm² > 16.00 N /mm²
Elongation	DIN 16938 DIN 16938	>200% longitudinal transversal	> 400 both directions
Thermal Stability	DIN 16938	6h/80c <2@ longitudinal transversal	< 1.0% both directions
Tear Strength (N)	DIN 16730	80 N.	> 110N.
Thermal Ageing	DIN 16938	7 d/80c change of tensile strength & elongation<+20% folding in cold at - 20°C: no cracks	< 1% both directions -30°C, no cracks
Slit Pressure Resistance	SIA 280/4	1h /5bar (0.5N/mm².)tight	Passed
Thermal Ageing	SIA 280/7	70d/70c mass decrease <2% change of elongation	mass decrease <0.5% change in elongation <2% both directions
Roots Resistance	SIA 280/10	no root penetration ingrown root must die off	Passed
Combustibility	SIA 280/11	class V/ smoke class 2	Passed
Water Vapor Defusion Resistance	DIN 16730	Less that 30,000	Less than 22,000
Water Absorption	SIA 280/12 SIA 280/13	8 months storage in water <±6% folding in cold at -20°C, no cracks	Passed
Compression Strength		48h/ 7N/mm² tight	Passed
Puncture Resistance	DIN 16730	drop hammer 500g, no leak on falling from 500 mms	Passed
Seam Strength	SIA 280/15	No peeling or sliding of welded seam	Passed
Cold Bend	DIN 16730	No cracks at-20°C	No cracks at -30°C
Resistance to Algea & Rot	DIN 16730	High Resistance	High Resistance
Chemical Resistance	DIN 16938	28/ lime milk, change of tensile strength longitudinal / transversal % change of elongation <±20% longitudinal/transversal %	Resistance to 10% Calcium Hydroxide, 7 days No change in colour, 0.5% change in weight, change in tensile & elongation <3%
		28d/ salt water, change of tensile strength longitudinal/transversal change of elongation <±20% longitudinal/ transversal %	Resistance of 10% sodium chloride, slight colour change, change in tensile strength & elongation <3%
		28d/ sulfurous acid, change of tensile strength longitudinal/transversal % change of elongation <±20% longitudinal/transversal %	3% sulfuric acid, slight change in colour, change in tensile strength & elongation <3%
		Folding in cold at-20°C, no cracks in all cases	Pass
		Soil Resistance	Pass