

Since 1985

انسوراب
Insuwrap

Insuwrap PVC 2000 TNL - FB

PRODUCT DESCRIPTION :

Insuwrap PVC 2000 TNL - FB is a calendered high polymer waterproofing membrane. The membrane specially formulated for underground use, satisfying the highest international standards, offering high physical properties and long term durability for maximum protection against structure deterioration.

FIELD OF APPLICATION :

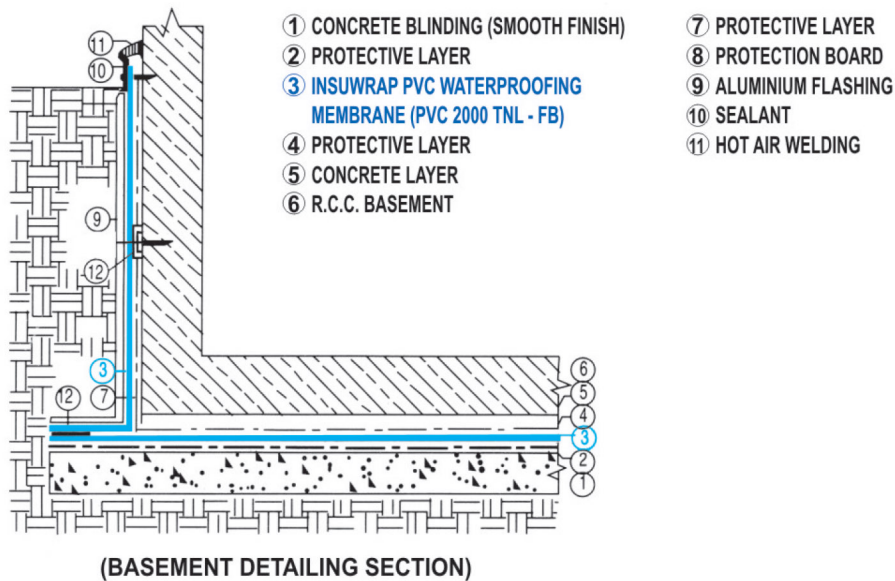
Underground Structures
Basements, Tunnels, Foundation of Bridges

METHOD OF APPLICATION

Horizontally : The rolls are laid over the clean smooth blinding concrete layer with 5 cm overlap welding together using hot air gun. Before applying the final concrete layer, the membrane should be extended wall in order to be joined with the vertical membrane later.

Vertically : The membrane is fixed fully adhered to the outside vertical wall before installing the protection board and back filling.

For details, please refer to our installation guide.



OUT STANDING FEATURES :

- * Easy to apply using hot air welding for joints.
- * Resistant to naturally occurring aggressive agents in ground water and soil.
- * Resistant to Acidic, Salty and Alkaline water.
- * High puncture resistance.

STORAGE :

Rolls should be stacked horizontally and parallel to each other on a smooth surface, protected from direct sun rays.



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MATERIAL PROPERTIES

Test	Standards	Standard Requirements	Results, 2000 TNL - FB
Membrane Thickness (mm)	DIN 16938	+10%	2.0 + Felt
Tensile strength	DIN 16938	>15N/mm ² longitudinal >15N/mm ² transversal	>17.90 N/mm ² >17.40 N/mm ²
Elongation	DIN 16938 DIN 16730	200% longitudinal 200% transversal	>400 both Directions
Thermal stability	DIN 16938	6h/80°C <2% longitudinal <2% transversal	< 1.0% both Directions
Tear Strength (N)	DIN 16730	80 N.	>110 N.
Thermal Ageing	DIN 16938	7 d/80°C change of tensile strength & elongation <±20% folding in cold at -20°C: no cracks	< 1.0% both Directions -30°C, no cracks
Slit Pressure Resistance	SIA 280/4	1h /5bar (0.5N/mm ² .) tight	Passed
Thermal Ageing	SIA 280/7	70d/70°C mass decrease <2% change elongation	mass decrease <0.5% change in elongation < 2% both directions
Roots Resistance	SIA 280/10	No root penetration ingrown roots must die off	Passed
Combustibility	SIA 280/11	class V/ smoke class 2	Passed
Water Vapor Defusion Resistance	DIN 16730	Less than 30,000	Less than 21,000
Water Absorption	SIA 280/12	8 months storage in water <±6% folding in cold at -20°C, no cracks	Passed
Compression Strength	SIA 280/13	48h/ 7N/mm ² tight	Passed
Puncture Resistance	DIN 16730	Drop hammer 500g, no leak on falling from 750mms	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 Algae & 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 to 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 & elongation <3%
		Folding in cold at -20°C, no cracks in all cases	Pass
		Soil Resistance	Pass

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