

Technical Data Sheet

RENOLIT ALKORPLAN Pro TS - Fully bonded membrane

Self-healing and swelling translucent PVC-P geomembrane for waterproofing the external side of concrete walls.

DESCRIPTION

The **RENOLIT ALKORPLAN Pro TS** is a translucent geomembrane made out of a highly flexible PVC film heat-coupled to a special non-woven polypropylene fleece containing a Super Absorber Polymer (S.A.P.) which makes it hydro-swelling. It provides an effective barrier against the three types of groundwater inflows (capillary humidity rise, hydrostatic groundwater pressure, soil infiltration water) and ground gases such as Radon. The translucency of the membrane allows a better quality control during installation.

APPLICATIONS

The **RENOLIT ALKORPLAN Pro TS** membrane is suitable for waterproofing foundations, basements, tunnels, underground parking lots and all other concrete constructions in contact with the ground. It can be used in saline, acidic or alkaline environments due to its chemical resistance. The **RENOLIT ALKORPLAN Pro TS** membrane is mainly dedicated for the post-application. The membrane is installed after concreting, with its fleece facing the hardened concrete. In the presence of water, the Super Absorber Polymer (S.A.P.) included in the fleece swells and creates a very sticky gelatinous paste which permanently seals the water penetration through the geomembrane in case of accidental perforation (self-healing property) and also prevents any migration of water between the geomembrane and the concrete (self-compartmentation property).

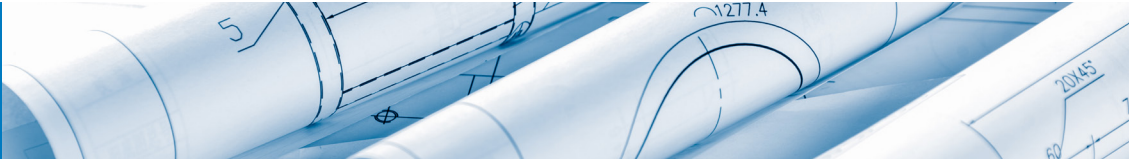
REGULATIONS & STANDARDS

- CE Marking - EN 13967 and EN 13491.
- DIN 18195 Standard - new DIN 18533.
- DIN SPEC 20000-202 approved.
- Avis technique CSTB (en cours).

STORAGE & HANDLING

The **RENOLIT ALKORPLAN Pro TS** membrane has to be stored under dry conditions, and protected from severe weather conditions and direct sunlight. The storage temperature should be between +5°C and +30°C.

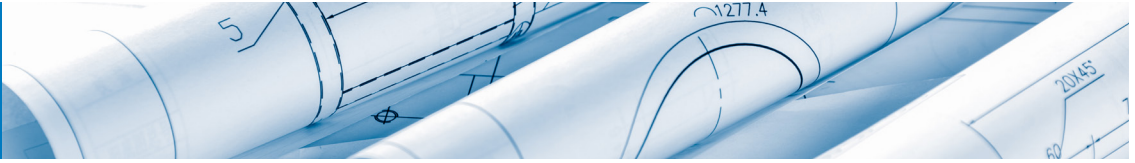
Description	Packaging
RENOLIT ALKORPLAN Pro TS 1.2 mm Translucent PVC membrane with S.A.P in the PP-fleece Width of free edge for welding = 50 mm	Width 1.08 m Length 20 m 18 rolls/pallet
RENOLIT ALKORPLAN Pro TS 1.2 mm Translucent PVC membrane with S.A.P in the PP-fleece Width of free edge for welding = 100 mm	Width 2.16 m Length 20 m 9 rolls/pallet



PRODUCT PROPERTIES

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Properties	Test standard	Units	Performance
Thickness -PVC-P -Geocomposite	EN 1848-2	mm	1.2 (+5%/-5%) 1.2 + 0.6 (+10%/-5%)
Surface Mass Geocomposite	EN 1849-2	kg/m ²	1.564 (+10%/-5%)
Straightness	EN 1848-2	mm/10m	≤75
Colour	-	-	Translucent
Resistance to water pressure -24h/60kPa -72h/1000kPa	EN 1928	-	Watertight Watertight
Resistance to static load	EN 12730	kg	≥20
Tensile properties -Tensile strength -Elongation at break	EN 12311-2 (A) EN ISO 527/3	N/50mm %	≥600 ≥200
Durability against artificial aging 84d/(70°C, 60kPa)	EN 1296 EN 1928 (B) 24h/1000kPa	-	Watertight
Durability against chemicals Storage in solution 28d/23°C -Alkaline Ca(OH) ₂ -Acid H ₂ SO ₃ -Brine NaCl	EN 1847 EN 1928 (B) 24h/1000kPa	-	Watertight Watertight Watertight
Compatibility with bitumen 28d/70°C	EN 1548 EN 1928 (B) 72h/500kPa	-	Watertight
Resistance to impact	EN 12691 Method A Method B	mm mm	≥500 ≥2000
Tear resistance (nail)	EN 12310-1	N	≥500
Reaction to fire	EN 13501-1	-	Class E
Shear resistance of the welded seam (automatic welding machine)	EN 12317-2	N/50mm	≥600 breaks outside the welded joints
Resistance to static puncture	EN ISO 12236	kN	≥2,0
Permeability to liquids	EN 14150	m ³ /(m ² ·d)	≤10 ⁻⁶
Resistance to oxidation (90d/85°C) -Residual tensile strength at break -Residual elongation at break	EN 14575 EN ISO 527/3	% %	<85 <85



CONCRETE BONDING PROPERTIES

Properties	Test standard	Units	Performance
Swelling capacity with water on one side only (+5°C, +23°C) -Swelling pressure -Volume increase	BDA Agrément®	kN/m ² ‰	≥170 ≥50
Self-healing capacity -Isolated damage area	BDA Agrément®	mm ²	≤100
Self-healing nail fasteners Ø nail (not removed): 14 mm (24h/5bars)	DIN EN 12390-8	-	Watertight
Lateral water migration resistance -Water pressure	Internal test	kN/m ²	≤3.5

INSTALLATION

In post-applied installation, the membrane will be placed with the PP fleece facing the hardened concrete and fixed with nails at the edges. The **RENOLIT ALKORPLAN Pro TS** membranes can be sealed together very easily by mastic glue **RENOLIT CEM805**, by thermal welding or by using butyl tape **RENOLIT ALKORPLAN Pro BAND**. The backfilling will be sized to exert a minimum pressure of 150 kg/m² on the membrane.



Sealing by mastic glue **RENOLIT CEM 805**.



Thermal welding.



Sealing by butyl tape **RENOLIT ALKORPLAN Pro BAND**.

These data are statistic figures according to Harmonized European Standards. This document cancels and replaces any other document previously published. In order to improve his products, the manufacturer reserves the right to change them without prior notice.