

Technical Data Sheet

# RENOLIT ALKORPRO C – Fully bonded membrane



Mint green PVC-P geomembrane for all concrete constructions below ground level.

## DESCRIPTION

The **RENOLIT** ALKORPRO C is a mint green geomembrane made out of a highly flexible PVC film heat-coupled to a non-woven polypropylene fleece.
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 product contains a high amount of recycled pre-consumer material.

## APPLICATIONS

The **RENOLIT** ALKORPRO C 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** ALKORPRO C membrane is used in pre-application, its geotextile facing the concrete to be poured.

## REGULATIONS & STANDARDS

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

## STORAGE & HANDLING

The **RENOLIT ALKORPRO C** 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 ALKORPRO C** 1.2 mm<br>Mint green PVC membrane. Width of free edge for welding = 50 mm | Width 1.08 m<br>Length 20 m<br>18 rolls/pallet |
| **RENOLIT ALKORPRO C** 1.2 mm<br>Mint green PVC membrane. Width of free edge for welding = 100 mm | Width 2.16 m<br>Length 25 m<br>9 rolls/pallet |

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2023-02

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## PRODUCT PROPERTIES



| Properties | Test standard | Units | Performance |
|---|---|---|---|
| Thickness<br>-PVC-P<br>-Geocomposite | EN 1848-2 | mm | 1.2 (+5%/-5%)<br>1.2 + 0.6 (+10%/-5%) |
| Surface Mass Geocomposite | EN 1849-2 | kg/m² | 1.564 (+10%/-5%) |
| Straightness | EN 1848-2 | mm/10m | ≤75 |
| Colour | - | - | Translucent |
| Resistance to water pressure<br>-24h/60kPa<br>-72h/1000kPa | EN 1928 | - | Watertight<br>Watertight |
| Resistance to static load | EN 12730 | kg | ≥20 |
| Tensile properties<br>-Tensile strength<br>-Elongation at break | EN 12311-2 (A)<br>EN ISO 527/3 | N/ 50mm<br>% | ≥600<br>≥200 |
| Durability against artificial aging 84d/(70°C) | EN 1296<br>EN 1928 (B)<br>24h/1000kPa | - | Watertight |
| Durability against chemicals Storage in solution 28d/23°C<br>-Alkaline $Ca(OH)_2$<br>-Acid $H_2SO_3$<br>-Brine NaCl | EN 1847<br>EN 1928 (B)<br>24h/1000kPa | - | Watertight<br>Watertight<br>Watertight |
| Compatibility with bitumen 28d/70°C | EN 1548<br>EN 1928 (B)<br>72h/500kPa | - | Watertight |
| Resistance to impact | EN 12691<br>Method A<br>Method B | mm<br>mm | ≥500<br>≥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<br>breaks outside the welded joints |
| Resistance to static puncture | EN ISO 12236 | kN | ≥2,0 |
| Permeability to liquids | EN 14150 | $m^3/(m^2 \cdot d)$ | $\leq 10^{-6}$ |
| Resistance to oxidation (90d/85°C)<br>-Residual tensile strength at break<br>-Residual elongation at break | EN 14575<br>EN ISO 527/3 | %<br>% | >85<br>>85 |

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## CONCRETE BONDING PROPERTIES

| Properties | Test standard | Units | Performance |
|---|---|---|---|
| Crack bridging ability<br>crack 3.2mm | ASTM D5385 (modified)<br>28d/690Kpa | - | Watertight |
| Resistance against lateral water flow<br>hole Ø 23.5mm<br>concrete(*) min. C20/25 | EN 12390-8 (modified)<br>7d/500kPa | - | Watertight |
| Concrete adhesion property<br>After 7d at 23°C<br>After 28d at 23°C<br>After 28d at 50°C | EN 1348 | N/mm² | 0.515<br>0.626<br>0.679 |

## 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** ALKORPRO C membranes can be sealed together very easily by mastic glue **RENOLIT** CEM805, by thermal welding or by using butyl tape **RENOLIT** ALKORPRO 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** ALKORPRO 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.

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