

RENOLIT ALKORPLAN 35036 SYSTEM CERTIFIED BY CETU

Translucent geomembrane for tunnels and basement works
Non UV



→ PRODUCT

- Homogeneous translucent flexible polyvinyl chloride (PVC-P) geomembrane, designed for tunnels, underground structures and tanking work. This geomembrane is not suitable for permanent exposure to UV-radiation.
- The use of a translucent geomembrane means that the consistency, the integrity and, to a certain extent, the quality of weldings can be rapidly checked visually.

→ CHARACTERISTICS

- Manufactured in ISO 9001 and ISO 14001 certified plant.
- Physical characteristics in accordance with EN 13491, DIN 16938, SIA 280.
- CE marking.
- Conforms to the specification "Volume 67 Chapter III" of the CCTG (General Technical Specification) relating to the waterproofing of underground structures, as verified by the CETE (Engineering Facilities Research Establishment) in Lyon (France).
- Hardly combustible (B2 - ÖN B 3800/1, B2 - DIN 4102, IV.2 - SIA 280, class E - EN ISO 11925).
- System certified by CETU, French Tunnel Engineering authority, with AVIS TECHNIQUE.
- Made from pure virgin resins without any recycled contents, therefore ensuring excellent mechanical characteristics and optimal durability.
- Resistant to swelling, rotting and ageing.
- Very high level of water tightness, even with permanent deformation and high water pressure.
- High capacity for adaptation to irregularities or deformation of support owing due to its high deformability and welding strength.
- High resistance to puncturing.
- Root resistance in accordance with EN 14416.
- Not resistant to bitumen, oil and tar.

→ INSTALLATION

- Hot air or hot wedge welding achieves correct assembly of the geomembrane. The weld ability and the quality of the welding done on site can be influenced by atmospheric conditions (temperature, humidity of the air) and also by the state of surface of the geomembrane (clean and dry) and must be adapted accordingly.
- An anti-puncturing geotextile or a composite (protective membrane with laminated fleece) should be placed onto the support of the waterproofing.
- In case the geomembrane is covered with sand, gravel or concrete a geotextile or a protection membrane of non reinforced PVC-P RENOLIT ALKORPLAN 35020 (protection against dynamic puncturing) should be placed in between.
- The geomembrane can be used on a bituminous support after the insertion of a suitable separation layer.

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→ CHARACTERISTICS	NORMS	UNITS	SPECIFICATIONS
Thickness	EN 1849-2	mm	2.0 $-0+10\%$
Transparency	EN 410		≥ 75
Tensile strength	EN ISO 527	N/mm ²	≥ 17
Elongation at failure	EN ISO 527	%	L: ≥ 300 T: ≥ 300
Tear strength	DIN 53363	N/mm	≥ 80
	EN ISO 34	kN/m	≥ 40
Dimensional stability after accelerated ageing (6h/80°C)	EN ISO 1107-2	%	≤ 2
Puncture resistance (CBR)	EN ISO 12236	kN	≥ 2.4
Height of fall without perforation	DIN 16726	mm	≥ 1.100
Cold folding resistance	EN 495-5		No cracks at -20°C
Resistant under water pressure	DIN 16726		Waterproof at 10 bar/10 h Waterproof at 6 bar/72 h
Behaviour after storage in hot water (8 months/50°C) - Mass variation. - Variation of elongation at failure - Variation of tensile strength. Folding at a temperature of -20°C	SIA.V 280	% % %	≤ 4 ≤ 20 ≤ 20 No cracks at -20°C
Behaviour after long-term ageing 80°C / 7 days - General appearance - Dimensional stability, L&T - Variation of tensile strength, L&T - Variation of elongation at failure, L&T Folding at a temperature of -20°C	DIN 16726 5.13.3 5.14 5.18	% % %	No blister ≤ 3 $< \pm 10$ $< \pm 10$ No cracks at -20°C
Behaviour after storage in hot water/or alkaline solutions. (90d/23°C) Methods A&B. - Variation of tensile strength, L&T - Variation of elongation at failure, L and T Folding at a temperature of -20°C	EN 14415	% %	$< \pm 20$ $< \pm 20$ No cracks at -20°C
Stability against micro organisms: - Variation of tensile strength, L&T - Variation of elongation at failure, L and T Folding at a temperature of -20°C	EN 12225	% %	$< \pm 20$ $< \pm 20$ No cracks at -20°C
Oxidation resistance	EN 14575		Fulfilled
Root resistance	EN 14416		Fulfilled
Behaviour in fire	ÖN B 3800/1 SIA 280 DIN 4102 EN ISO 11925		B2 IV.2 B2 Class E

We reserve the right to amend or change specifications as and when required.

We will be pleased to advise current specifications upon request.

Other technical characteristics are available upon request.

→ STORAGE

- Standard packaging: delivery in roll form, 2.15 meter width, on cardboard cores.
- Store in a dry unheated space. Rolls to be parallel and in original packing. Do not stack in cross form or under pressure. The storage area must be of such nature as not to damage the geomembrane.