

### **RENOLIT** ALKORTOP





# RENOLIT ALKORTOP: TPO based single ply roofing membranes

With the RENOLIT ALKORTOP membranes RENOLIT offers a range of roofing products that are TPO-based (Thermoplastic polyolefin).

**RENOLIT** ALKORTOP is the lightest roofing membrane in our range and is used in the waterproofing of new buildings and refurbishment projects.

#### The benefits of RENOLIT ALKORTOP:

#### **Ecological**

- Excellent ecological alternative to other synthetic materials
- Free of plasticisers and heavy metals
- Clean rainwater
- Ecological applications: the ideal solution for green roofs

#### Fire Safety

- Fire Class: E according EN 13501-1
- $\bullet$  External Fire Resistance up to  $B_{ROOF}(t1)$  according to EN 13501-5
- Reliable installation by means of hot air welding (no naked flame during installation)

#### Physical properties

- Bitumen resistant
- Good flexibility at cold and warm temperatures
- Root resistant according to EN 13948
- High resistance against foldability at low temperatures
- High UV resistance
- Extensive chemical resistance
- Compatible with most insulation types (EPS, XPS, PUR, PIR, etc.)

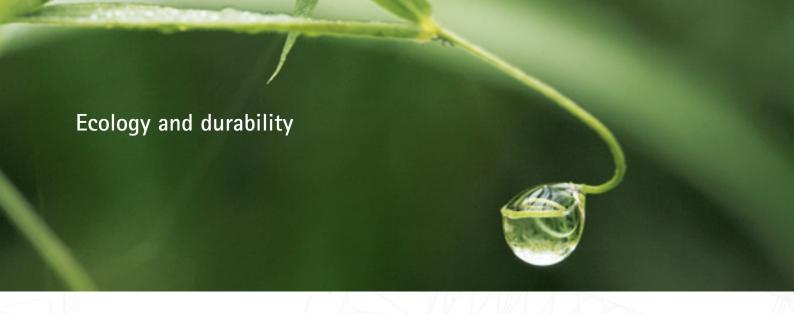
#### Durable

- Long life expectancy
- Continuous quality control by MFPA (Leipzig)









#### Durability

RENOLIT who has an experience on the market for 40 years introduced TPO membranes to the building and construction market in 1994. Our practical experience and extensive external and internal (lab) testing make us the single ply specialist and your partner of choice for your flat roof.

If the RENOLIT ALKORTOP membranes are installed in the correct way, they will protect your building even in extreme conditions for many years. This range of membranes with a life expectancy of more than 30 years (depending on design, quality of installation, maintenance, thickness and external aggression) can be installed from the southern to the northern regions due to its excellent cold resistance and UV resistance.

#### The environmental product range

The environmental nature of RENOLIT ALKORTOP is due to several factors:

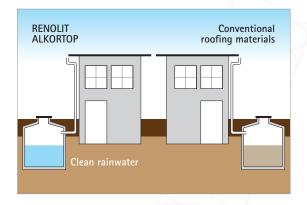
- This product range contains no plasticizers and/or heavy metals.
- The membrane is an excellent alternative to other synthetic roofing solutions.
- Excellent durability and the possibility for recycling are further qualities that support the green image of these membranes.





#### Rainwater quality

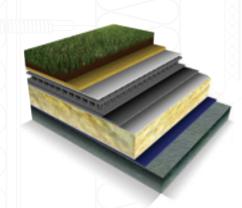
Contact between water and RENOLIT ALKORTOP roofing membrane will not influence the color or quality of the rainwater.





#### The ideal solution for ballasted roofs

RENOLIT ALKORTOP membranes are dedicated for purpose and unaffected by micro-organisms. These membranes were tested according to EN 13948 over a 2 year period. They have a high resistance to static perforation and have an excellent root resistance on the roof surface as well as in the seams. RENOLIT ALKORTOP membranes are frequently used for traditional ballasted systems with gravel and paving slab in addition to the more ecological green roof systems.



# A homogeneous result and fire proof installation

RENOLIT ALKORTOP membranes are installed by means of hot air from a manual or automatic welding machine. By blowing hot air between two membranes and pushing them together we create a homogeneous roof surface on which the welded seams are as strong as the roofing membrane itself.

As the installation of the membrane is by means of hot air, there is no naked flame during installation, maintaining the safety of the installer and the building.



#### An easy installation even in detail

In addition to the large range of RENOLIT ALKORPLUS accessories (separation layer, vapour control layer,etc) available for all our roofing membranes, we also have suitable TPO roofing accessories for the completion of roof detailing.

This range of RENOLIT ALKORTOP accessories based on TPO (corners, penetrations, edging, etc.) make sure that also the roof details can be completed in an easy and efficient manner.



# **RENOLIT ALKORTOP:** TPO based single ply roofing membranes

Properties	Method	RENOLIT ALKORTOP F <sub>35086</sub> 1,5 mm	RENOLIT ALKORTOP L <sub>35087</sub> 1,5 mm	Units	
Visible defects	EN 1850-2	pass	pass	-	
Length	EN 1848-2	20 (-0/+5 %)	15 (-0/+5 %)	m	
Width	EN 1848-2	1,5 (-0,5/+1 %)	2 (-0,5/+1 %)	m	
Straightness	EN 1848-2	< 50	< 50		
Flatness	EN 1848-2	< 10	< 10 < 10		
Mass per unit area	EN 1849-2	1,85 (-5/+10 %)	1,6 (-5/+10 %)	kg/m²	
Effective thickness	EN 1849-2	1,5 (-5/+10 %)	1,5 (-5/+10 %)	mm	
Watertightness	EN 1928 (B)	pass	pass	-	
External fire resistance	EN 13501-5	B <sub>ROOF</sub> (t1) (for specified roof structures)	Deemed to satisfy	-	
Fire performance	EN 13501-1	E Class	E Class	-	
Peel resistance of joints	EN 12316-2	≥ 300	≥ 300	N / 50 mm	
Shear resistance of joints	EN 12317-2	≥ 500, break outside joint	≥ 400, break outside joint	N / 50 mm	
Tensile strength	EN 12311-2 (A) EN 12311-2 (B)	≥ 1200	≥ 5	N / 50 mm N / mm²	
Elongation at break	EN 12311-2 (A) EN 12311-2 (B)	≥ 19	≥ 150	% %	
Resistance to impact Hard substrate Soft substrate Resistance to static perforation	EN 12691 Method A Method B EN 12730 A/B	≥ 700 ≥ 950	≥ 500 ≥ 650	mm mm	
Hard substrate	Method A	≥ 20	≥ 15	kg	
Soft substrate	Method B	≥ 20	≥ 15	kg	
Tear resistance	EN 12310-2	≥ 320	≥ 150	N	
Root resistance	EN 13948	pass	pass	-	
Dimensional stability	EN 1107-2	≤ 0,3	≤ 0,3	0/0	
Cold crack performance	EN 495-5	≤ - 30	≤ - 40	°C	
UV resistance	EN 1297	pass	pass		
Effect of liquid chemicals, incl. water (annex C)	EN 1847	pass	pass		
Hail resistance Hard substrate Soft substrate	EN 13583 Method A Method B	≥ 20 ≥ 28	≥ 18 ≥ 21	m/s m/s	
Vapour diffusion resistance μ	EN 1931	200 000 (-30/+30 %)	150 000 (-30/+30 %)		
Resistance against ozone	EN 1844	pass	pass		
Exposure to bitumen	EN 1548 (B)	pass	pass		

Delivery Programme	Thickness	Width	Roll length	Weight/Im	Weight/Roll	Rolls/Pallet
RENOLIT ALKORTOP F <sub>35086</sub>	1,2 mm	1,5 m	20 lm	2,160 kg/m	ca. 44 kg	16
	1,5 mm	1,5 m	20 lm	2,565 kg/m	ca. 52 kg	16
	1,8 mm	1,5 m	20 lm	3,180 kg/m	ca. 64 kg	16
	2,0 mm	1,5 m	20 lm	3,480 kg/m	ca. 70 kg	16
	2,0 mm	1,0 m	15 lm	2,300 kg/m	ca. 35 kg	16
RENOLIT ALKORTOP L <sub>35087</sub>	1,5 mm	2,0 m	15 lm	3,080 kg/m	ca. 47 kg	21
RENOLIT ALKORTOP D <sub>35080</sub>	1,5 mm	0,5 m	10 lm	0,905 kg/m	ca. 9 kg	16

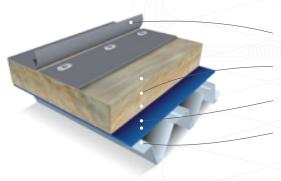
**Storage**Store dry. Rolls to be parallel and in original packing where possible.

## RENOLIT ALKORTOP: Systems

### RENOLIT ALKORTOP F<sub>35086</sub>

Single ply polyester reinforced membrane of thermoplastic polyolefin (TPO).

Application: mechanically fastened system



**RENOLIT** ALKORTOP  $F_{35086}$  membrane

Thermal insulation

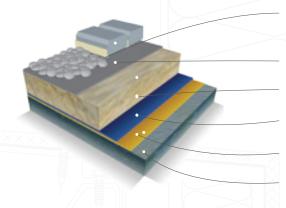
RENOLIT ALKORPLUS vapour control layer

Support structure (f.i. Steeldeck)



Single ply glass fleece reinforced membrane of thermoplastic polyolefin (TPO)

Application: ballasted system



Gravel, concrete tiles or RENOLIT ALKORGREEN pack.

**RENOLIT** ALKORTOP  $L_{35087}$  membrane

Thermal insulation

RENOLIT ALKORPLUS Vapour control layer

**RENOLIT** ALKORPLUS Protection layer

Support structure (f.i. Concrete)



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### WWW.ALKORPROOF.COM - WWW.RENOLIT.COM/ROOFING



RENOLIT ALKORTOP roofing products and systems have a standard guarantee of 10 years, and are installed by approved contractors and installers who are trained and assessed by RENOLIT.







All **RENOLIT** membranes for roofing are part of the ROOFCOLLECT collection and recycling programme.

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