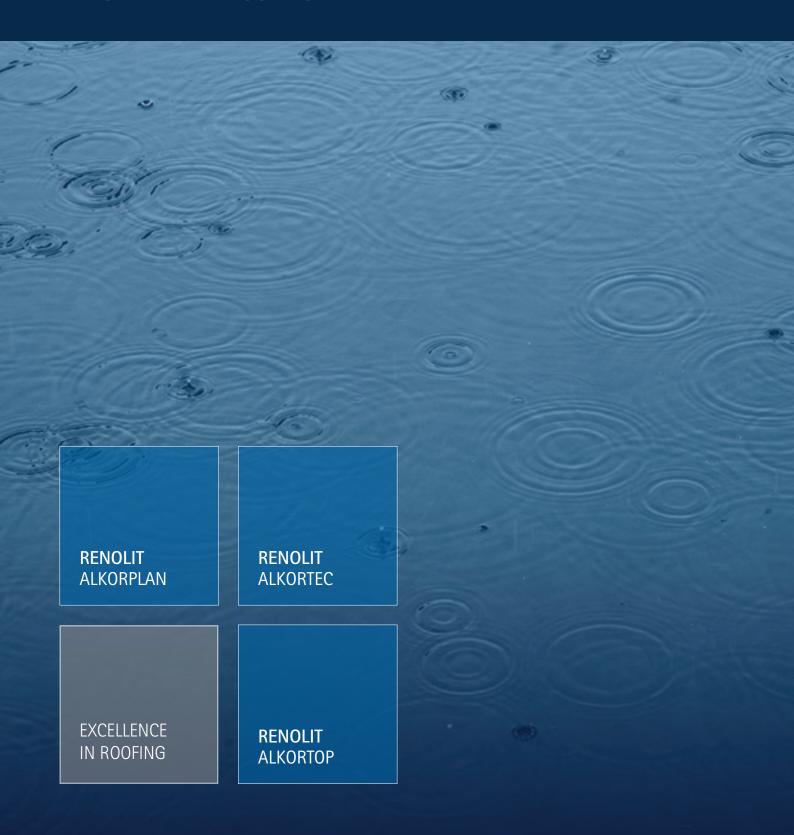


# **RENOLIT** WATERPROOFING





# Excellence in roofing

With a presence in the market for forty years, RENOLIT is today one of the largest European producers of synthetic single-ply waterproofing membranes for roofing, and is the market leader in a number of countries.

Our products are intended for waterproofing flat, pitched or curved roofs in both new buildings and refurbishment.



Ghelamco Football stadium (Belgium)

Numerous clients from a wide variety of industries have entrusted their roofing projects to RENOLIT:

#### In the car industry

Lotus, Ford, Land Rover, BMW, SEAT, OPEL, Porsche, PSA, Renault, Lada, Volvo, Mercedes, ...

#### In aviation

British Aerospace, Air France, Airbus, Proteus, SOCATA, SAAB Aerosystem, ...

#### In high technology

Hewlett Packard, Pioneer, IBM, CEA (Centre for Atomic Research), Vestas Windmills, ...

#### In the food industry

Tesco, Kerry foods, KFC, McDonald's, Perrier, Waitrose, Somerfield, Nestlé, Carlsberg, ...

#### In transport

Airports (Aberdeen, Heathrow, Frankfurt, Oslo, Gatwick, Copenhagen, ...), railway stations (TGV station Lyon Saint Exupéry, RER Station Stade de France, Railway Station Göteborg, TGV Brussels, ...)

#### In Retail

IKEA, Lidl, Métro, Auchan, Aldi, Zara, Carrefour

# Roofing product range

The **RENOLIT** product range consists of 2 different synthetic roofing membrane types, with their own properties and advantages.

The different roofing membranes and systems offer industrial, as well as ecological and aesthetic solutions for waterproofing your roofs.



RENOLIT ALKORPLAN is a thermoplastic membrane based on PVC-P. RENOLIT ALKORPLAN, although traditionally installed on flat, industrial roofs, is now also commonplace on pitched and barrel vaulted roofs due to its flexibility and aesthetic qualities.

RENOLIT ALKORTOP is a thermoplastic membrane based on TPO. It is an ideal solution for roofs under ballast thanks to its exceptionally high resistance against microorganisms. Thanks to its light weight and its compatibility with old bitumen, the RENOLIT ALKORTOP is also suitable for use in the renovation of bitumen roofs.

RENOLIT ALKORTEC is a thermo-plastic membrane based on EVA/EBA (Ethylene Vinyl Acetate / Ethylene Butyl Acrylate). Apart from its ease of welding and its flexibility, the RENOLIT ALKORTEC roofing membrane has an excellent UV resistance and is especially appropriate for the use in Southern and Central Europe. Its compatibility with bitumen and its permeability to vapour makes it particularly well-suited for refurbishment.



# **RENOLIT** membranes have six main advantages:

#### Cost-effectiveness

- Economies on the installation costs: one single 30 m<sup>2</sup> roll replaces 6 bituminous rolls in a 2 layer system.
- Economies on the structure costs: the waterproofing is 5 times lighter than the traditional multilayer systems.
- Economies on the maintenance costs: generally limited to bi-annual inspections.

#### Fire Safety

- No naked flame during installation.
- Excellent fire behaviour.

#### Aesthetic

- Adaptable to most roof substrates.
- A broad colour range (RENOLIT ALKORDESIGN).
- Integrity of the seams.

#### Physical properties

- Vapour permeability.
- Flexibility.
- Static and dynamic perforation resistance.

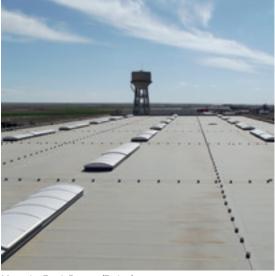
#### Durability

• Life expectancy assessed by the BBA (British Board of Agrément) as in excess of 35 years.

#### Recyclable

• The RENOLIT roofing membranes can be recycled and be reintroduced into the production process in order to preserve valuable resources. After their service life, the old roofing membranes can be collected and recycled into new raw material.

The RENOLIT roofing division, aware of its ecological responsibility, participates in the ROOFCOLLECT® collection and recycling programme.



Mercedes Truck Factory (Turkey)



IKEA (Belgium)



#### Reduced installation time

As the RENOLIT waterproofing membrane is a single layer of highly developed material, it significantly speeds up the installation process, which will result in identifiable cost savings in installation time.

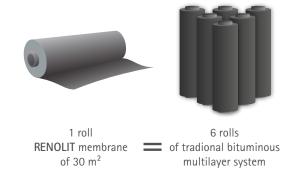
For example, to replace 1 roll of 30 m<sup>2</sup> of **RENOLIT** membrane, at least 6 rolls of a traditional bituminous multilayer membrane are needed.

### Light weight

The weight of the product is one of its major advantages. The membrane is between 20 to 40% of the weight of some traditional multilayer systems. The weight ranges from  $1.6~kg/m^2$  up to  $3.3~kg/m^2$ , depending on the thickness of the membrane.

#### Limited Maintenance

The maintenance required by the RENOLIT waterproofing system is limited: in most cases, a visual inspection and routine clearing of gutters and outlets is all that is required. The RENOLIT membranes provide the building owner with a long term cost effective solution and contribute to the durability of their buildings.





Stade de Nice (France)



Museum of Art (Denmark)



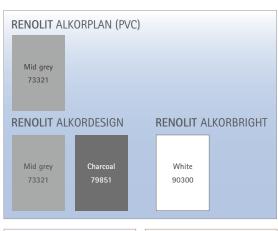
## The integrity of the seams

The aesthetic benefits of RENOLIT membranes would be lost if the roofs showed seams and joints similar to those in the majority of traditional systems.

**RENOLIT** membranes provide a very smooth appearance to the roof, which is appreciated by architects and building owners alike.

## Selective colour range

**RENOLIT** has developed a range of colours which provides an opportunity for the architect to create a roofscape which is both distinctive and effective:







## Adaptability to all supports

The RENOLIT membranes can be adapted to a wide variety of roof shapes. They permit the architect to consider the application and use on buildings where the roofs are of a challenging and architecturally interesting nature.



Industrial Building (Italy): RENOLIT ALKORBRIGHT

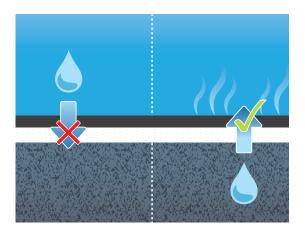


Sport Hall (Denmark): RENOLIT ALKORTOP



# Vapour Permeability

The RENOLIT membranes are not only waterproof, but are also permeable to vapour. This allows the roof to "breathe" (up to 15 times more permeable than most other traditional bituminous multilayer systems for RENOLIT ALKORPLAN and up to 10 times for RENOLIT ALKORTOP).



## Suited for Refurbishment

Thanks to its vapour permeability, the product is particularly suited for roof renovations. In the majority of cases, instead of having to remove the defective waterproofing, it is often only necessary to install the RENOLIT waterproofing system over the existing one. A proportion of the water inside the defective waterproofing system will diffuse through the membrane over time.

### Fire resistant roofing membrane

The RENOLIT roofing membranes are fire retardant. Further to this, there are no naked flames during the installation. A roof with RENOLIT waterproofing membranes is installed by means of hot air welding. All activities within the building can in this way be continued without any risk for the people inside.



Sports Arena (Sweden)



MLP warehouse (Russia)



# Flexibility

Every building is subject to structural and thermally induced movements. The RENOLIT membranes will accommodate normal building movements, however in the case of designed movement joints, a specific homogeneous RENOLIT membrane will be specified.

# Durability

The extreme durability of RENOLIT's products has been tested in practice: RENOLIT membranes have been in use since 1972! Below there are some examples of roofs that have been proven to perform well.

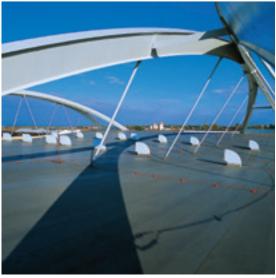




Scunthorpe Leisure Academy (UK)



BMW Factory (Germany)



Transport station (Czech Republic)

# General Systems: RENOLIT ALKORPLAN, RENOLIT ALKORTEC and RENOLIT ALKORTOP

All systems can be used for new build or refurbishment.

# Mechanically fastened system

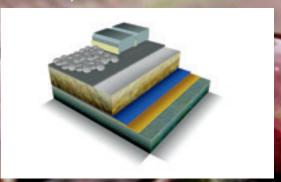


Pressure plates and screws to approved specification are fastened along the edge of the roof sheet, through the insulation into the roof deck.



Logistic department DHL (Sweden)

# Ballasted system

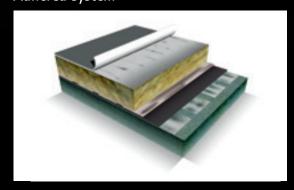


The membrane is covered with protection, separation and drainage layers as necessary and restrained with ballast, paving slabs or green and garden roof planting systems.



Wholesale Building (The Netherlands)

## Adhered system



The membrane is fully or partially bonded. It is particularly suited to roof refurbishment as some membranes can be bonded directly onto old bitumen or felt.



Hospital (Belgium)



# Aesthetic system: RENOLIT ALKORDESIGN

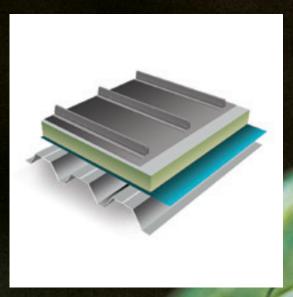
## **Profile system**

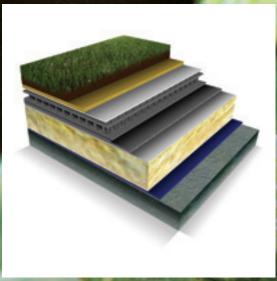
The RENOLIT ALKORDESIGN system simulates the appearance of standing seam and lead roll roofs without the weight and expense of aluminium, zinc, copper or lead. The profiles are welded to the RENOLIT ALKORPLAN roof sheet, providing the aesthetic appeal of a seamed or rolled metal roof with all the advantages of single ply.

# Ecological systems: RENOLIT ALKORGREEN

#### Green roofs

Over the substructure you have an adhered vapour control layer, a bonded insulation board, followed by the waterproofing membrane which is also adhered. Then follows a gliding layer, drainage layer and water retention layer. The substrate layer is then added ensuring both feeding substances and water supplies of vegetation and the oxygen and anchoring of the roots to the layer of plants that finish this system.









Dogs Trust (UK)

HDB Sengkang (Singapore)

suited for RENOLIT ALKORPLAN suited for RENOLIT ALKORTEC

suited for RENOLIT ALKORTOP

# Ecological systems: RENOLIT ALKORBRIGHT

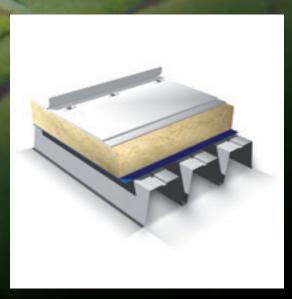
# RENOLIT ALKORSOLAR

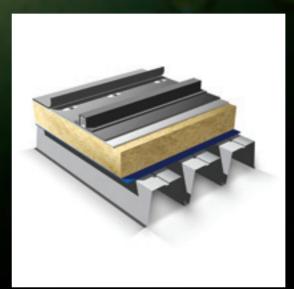
### Cool roof system

The RENOLIT ALKORBRIGHT roofing membrane is a completely ecological solution for waterproofing flat roofs. With this white membrane it is possible to have a homogenous white roofing surface with an optimal reflection of the sunlight. A protective coating on the RENOLIT ALKORBRIGHT membrane minimises the dirt sticking to the roofing surface. The membrane is easily cleaned with clear water and keeps a white colour. When used in combination with solar systems, RENOLIT ALKORBRIGHT increases the return on electrical power considerably.

### Solar fixing system

The ultra light RENOLIT ALKORSOLAR fixing system makes it possible to attach solar panels onto the roof without the need of extra ballast or perforation of the roofing membrane. The development of the system has taken into account the abilities of PVC roofing membranes to have compatible elements welded directly to them. The method allows a variety of different solar panels to be installed quickly and cost effectively.









Industrial building (Belgium)

Industrial building (Belgium)

The information contained in the present commercial literature has been given in good faith and with the intention of providing information. It is based on current knowledge at the time of issue, and may be subject to change without notice. Nothing contained herein may induce the application of our products without observing existing patents, certificates, legal regulations, national or local rules, technical approvals or technical specifications or the rules and practices of good workmanship for this profession. The purchaser should verify whether import, advertising, packaging, labelling, composition, possession, ownership and the use of our products or the commercialisation of them are subject to specific territorial rules. He is also the sole person responsible for informing and advising the final end user. When faced with specific cases or application details not dealt with in the present guidelines, it is important to contact our technical services, who will give advice, based on the information at hand and within the limitations of their field of expertise. Our technical services cannot be held responsible for the conception of, nor the execution of the works. In the case of negligence of rules, regulations and duties on the part of the purchaser we will disclaim all responsibility. The colours respect the UV resistance required by EOTA, but are still subject to the natural change over time. Are excluded from the guarantee: aesthetic considerations in case of partial repair of deficient membrane covered by the quarantee. The product availability differs from country to country, please refer to the RENOLIT technical department for further advice.

# WWW.RENOLIT.COM/ROOFING



The British Board of Agrément have assessed the life expectancy of RENOLIT ALKORPLAN F used in the United Kingdom to be in excess of 35 years.



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



The RENOLIT Iberica S.A. factory in Barcelona is approved to ISO 9001/14001.





