



 **alkorPLAN**[®]
BY RENOLIT WATERPROOFING

RENOLIT WATERPROOFING
EXCELLENCE IN ROOFING





Airport station Satolas (France)

RENOLIT WATERPROOFING EXPERIENCE IN ROOFING MEMBRANES. alkorPLAN®

The alkorPLAN® membranes are based on monomeric PVC-P. Although these membranes are traditionally installed on flat roofs, they are now commonplace on pitched and barrel vaulted roofs due to its flexibility and aesthetic qualities and is used in the waterproofing of new buildings and refurbishment projects.

The alkorPLAN membranes have six main advantages:

Cost-effectiveness

- Economies on the installation costs: one single 30m² 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
- Fire retardant membrane

Aesthetic

- Adaptable to most roof substrates.
- A broad colour range.
- 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 30 years

Recyclable

- PVC can be recycled and be reintroduced into the production process in order to preserve valuable resources. After their service life, the old PVC 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.



Hardi (Denmark)



Shopping Centre (Russia)



RENOLIT WATERPROOFING
COST EFFECTIVE

Reduced installation time

As the alkorPLAN® 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 m² of alkorPLAN®, 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 m² up to 3.3 kg/m², depending on the thickness of the membrane.

One roll alkorPLAN® of 30m² = 6 rolls of traditional bituminous multilayer system

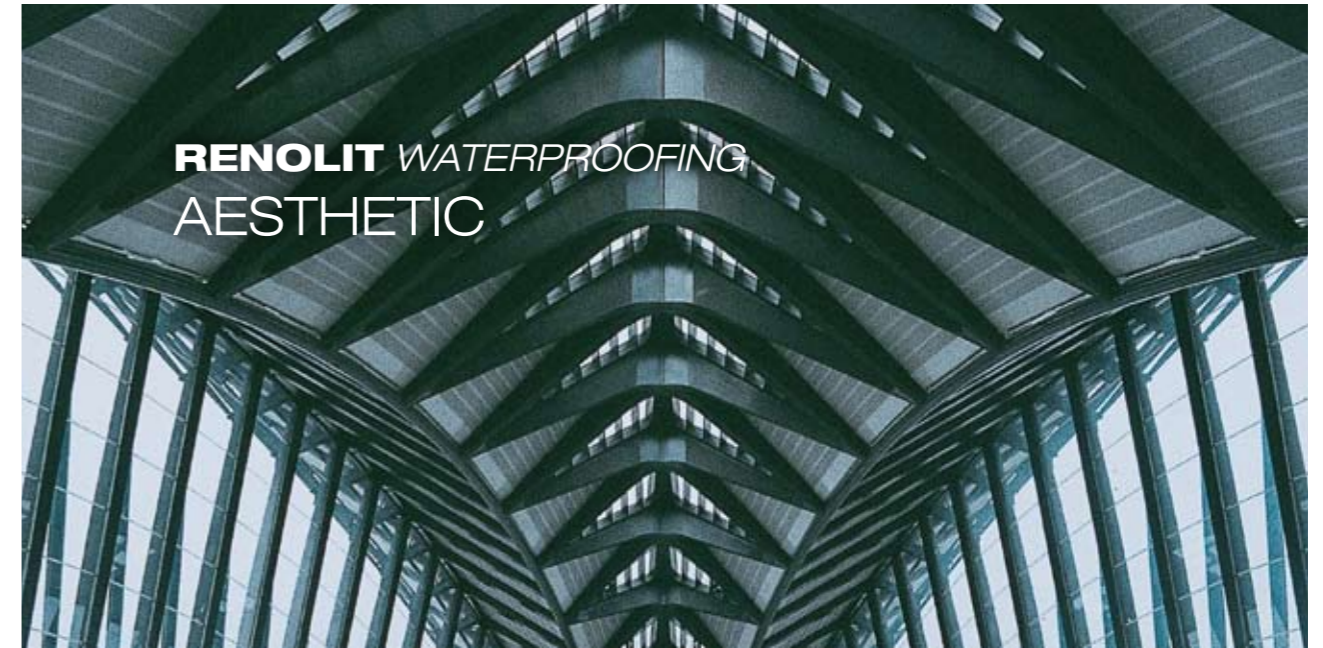
Limited Maintenance

The maintenance required by the alkorPLAN® waterproofing system is limited: in most cases, a visual inspection and routine clearing of gutters and outlets is all that is required.

The alkorPLAN® membranes provide the building owner with a long term cost effective solution and contribute to the durability of their buildings.



Museum of Art (Denmark)



RENOLIT WATERPROOFING
AESTHETIC

The integrity of the seams

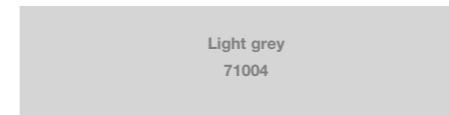
The aesthetic benefits of alkorPLAN® would be lost if the roofs showed seams and joints similar to those in the majority of traditional systems.

alkorPLAN® provides a very smooth appearance to the roof, which is appreciated by architects and building owners alike.

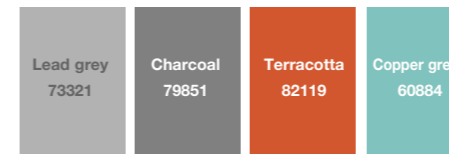
Selective colour range

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

Standard colour



ALKORDESIGN® colours



The colour availability will depend on the geographic location of the building. Please refer to the **RENOLIT** technical department for further advice.

Adaptability to all supports

The alkorPLAN® 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.



Theatre (The Netherlands)
A very interesting example of the alkorPLAN® "copper" colour. Please note that only the main hall has been waterproofed with alkorPLAN® membranes, the rest of the building is covered with real copper.



Vapour Permeability

The alkorPLAN® membranes are not only waterproof, but are also permeable to vapour. This allows the roof to “breathe” (upto 15 times more permeable than most other traditional bituminous multilayer systems).

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 alkorPLAN® waterproofing system over the existing one. A proportion of the water inside the old roofing system will diffuse through the membrane over time



Sport Hall (Italy)

Fire resistant roofing membrane

The alkorPLAN® roofing membranes are fire retardant. Further to this, there are no naked flames during the installation. A roof with alkorPLAN® 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 .



Trade entertainment Center (Russia)

Flexibility

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



International University Campus (France)

Durability

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



BMW Factory (Germany)

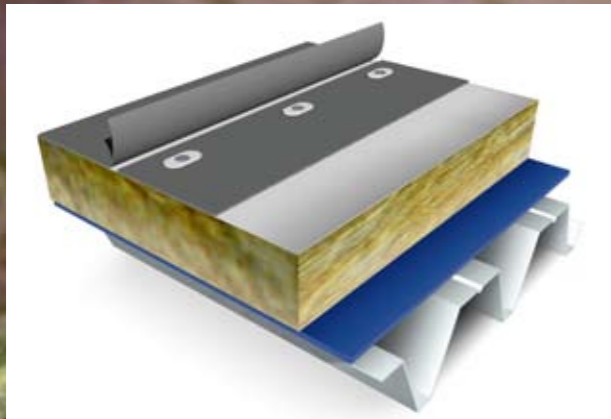


Transport station (Slovakia)

RENOLIT WATERPROOFING
alkorPLAN® SYSTEMS

MECHANICALLY FASTENED SYSTEM

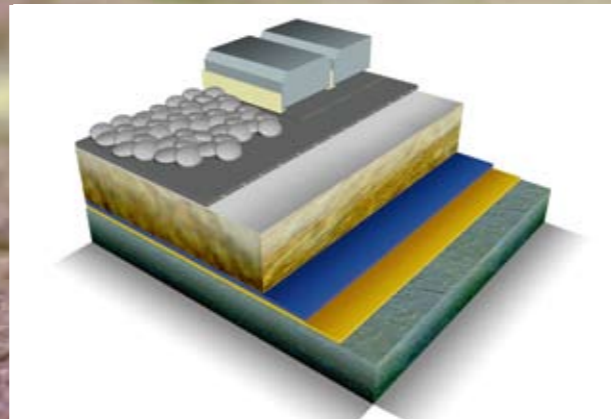
Pressure plates and screws to approved specification are fastened along the edge of the roof sheet, through the insulation into the roof deck. This system can be used for new build or refurbishment.



Zara (Spain)

BALLASTED SYSTEM

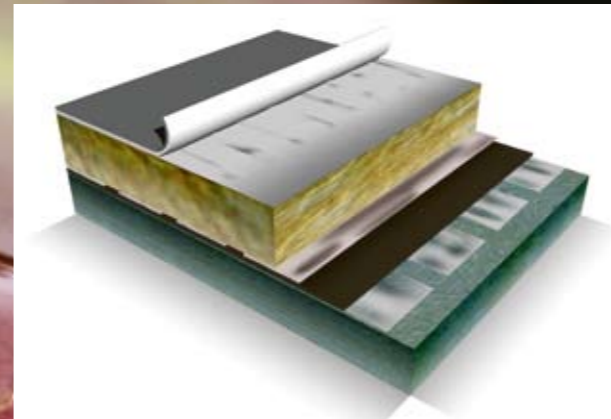
The membrane is covered with protection, separation and drainage layers as necessary and restrained with ballast, paving slabs or green and garden roof planting systems.



Groothandelsgebouw (The Netherlands)

ADHERED SYSTEM

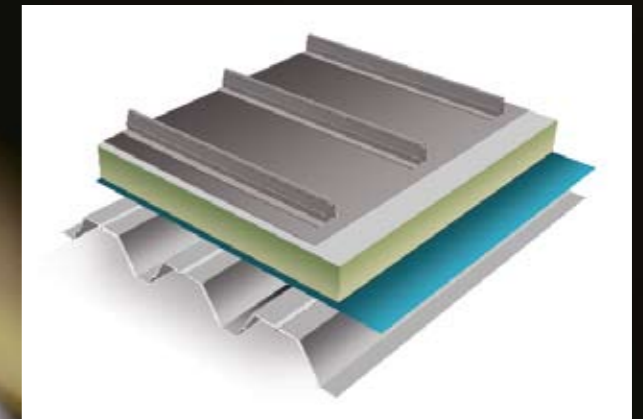
The membrane is fully or partially bonded. It is particularly suited to roof refurbishment as some membranes can be bonded directly onto old bitumen or felt.



Hospital (Belgium)

ALKORDESIGN® SYSTEM

ALKORDESIGN® simulate the appearance of standing seam and lead roll roofs without the weight and expense of aluminium, zinc, copper or lead, and the heavy duty roof structure required to support them. The profiles are welded to the alkorPLAN® roofsheet, providing the aesthetic appeal of a seamed or rolled metal roof with all the advantages of single ply.

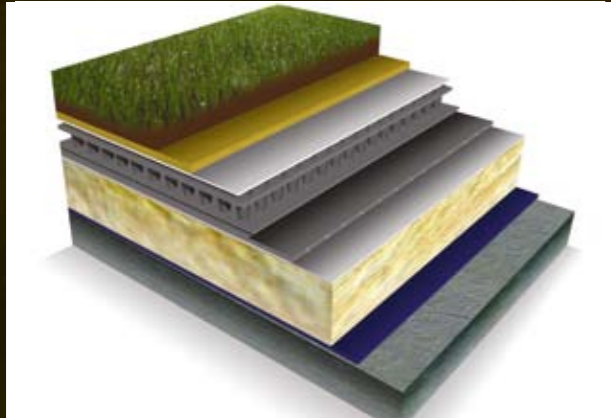


Printing Office (France)

RENOLIT WATERPROOFING alkorPLAN® SYSTEMS

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.



Grand Hotel Kalidria (Italy)

RENOLIT WATERPROOFING alkorPLAN® REFERENCE LIST

Zara	(Zaragoza, Spain)	2002
Plaza de Toros	(San Sebastian, Spain)	1998
City Hall	(London, UK)	2001
Métro Supermarket	(Istanbul, Turkey)	2000
IKEA	(Hanau, Germany)	1998
BMW	(Hams Hall, UK)	1999
Cherrybank Gardens	(Perth, UK)	2002
Brighton Eye	(Brighton, UK)	2003
Da Vinci College	(Gorinchem, The Netherlands)	2000
Day-care Centre	(Stockholm, Sweden)	2000
Surgery in psychiatric hospital	(Stockholm, Sweden)	2000
Lawyers' office "Droogbak"	(Amsterdam, The Netherlands)	1998
School	(Saxmundham, UK)	1998
Royal Vet College	(Herts, UK)	2003
Elf Total service station	(Séverac le Château, France)	1998
ING Bank	(Amersfoort, The Netherlands)	1998
New Generation Centre	(Newhaven Edinburgh, UK)	1999
Day-care Center	(Stockholm, Sweden)	2000
Ferrybanks School	(Waterford, Ireland)	2001
Office building	(Capelle aan de IJssel, The Netherlands)	2005
Ravenswood School	(Ipswich, UK)	2002
Private houses Weideklaver	(Spanbroek, The Netherlands)	2002
Keighley Market	(Keighley, UK)	2004
Edenhall Tennis village	(Cork, Ireland)	2005
Dorey Centre	(Guernsey, UK)	2000
Appartments	(Bovenkarspel, The Netherlands)	2002
Office building	(Tønsberg, Norway)	2000
Panorama Museum	(Bad Frankenheim, Germany)	1996
Airport station Satolas	(Lyon, France)	1995
Sainbury's	(Calcot, UK)	2004
Sport City Living	(Cork, UK)	2004
ING Centre	(Budapest, Hungary)	2002
Tour Pléiade	(Bruxelles, Belgium)	1992
Futuroscope	(Poitiers, France)	
Sainsbury's	(Twickenham, UK)	1998
Siemens AG	(Görlitz, Germany)	1988
Trade-entertainment centre Europark	(Moscow, Russia)	2004-2005
Lyrice House	(Guernsey, UK)	2004
Park Theatre	(Hoorn, The Netherlands)	2003
Old people's home Freising	(Germany)	1981
BMW Factory	(Dingolfing, Germany)	1986
Chassé theatre	(Breda, The Netherlands)	2002
Sport Hall	(Livorno, Italy)	2003
Silos	(Cestas, France)	1996
Swimming pool	(Besançon, France)	
Teatro real	(Madrid, Spain)	1993
Halkade offices	(Ijmuiden, The Netherlands)	1999
Ryde Pavilion	(Isle of Wight, UK)	1992
Jehovah's Witnesses Church	(Sweden)	1999
Lyon Auditorium	(Lyon, France)	1999
City Business Park	(Plymouth, UK)	2000
Student Centre	(Cork, Ireland)	2005
Blackwells	(Oxford, UK)	2002
Office building Strogoff	(Schagen, The Netherlands)	1998
Auchan	(Moscow, Russia)	2003
Airbus	(Toulouse, France)	1993
Bluecoat School	(Liverpool, UK)	2003
Sporthall De Wolfkamer	(Huizen, The Netherlands)	1998
Safeway	(Coventry, UK)	1991
Ford Motor Company	(Golcuk-Kocaeli, Turkey)	1998
Folleli theatre	(Folleli, France)	1994
Tesco	(Inverness, UK)	1997
Olympic Centre	(Warsaw, Poland)	2004
Saab	(Glasgow, UK)	1999
Gazet van Antwerpen	(Antwerp, Belgium)	1994
McDonalds	(Moscow, Russia)	2003-2004
Swimming pool Het Keerpunt	(Zoetermeer, The Netherlands)	1998
La Charotterie	(Guernsey, UK)	2003
Appartments Development	(Cork, Ireland)	1992
Finance Centre	(Antwerp, Belgium)	1990
Restaurant Deleuil	(Lacanau, France)	2001
Private houses	(Damascus, Syria)	1984
RTVE	(Madrid, Spain)	1981
Private house	(Lewisham, UK)	2003
lot 6	(Brussels, Belgium)	1992
Holiday Inn	(Antwerp, Belgium)	1995
Hotel Kalidria	(Italy)	2001-2002
Banco di risparmio	(Lucca, Italy)	1984
Montserrat Monastery	(Barcelona, Spain)	2000-2004
Euroclear	(Brussels, Belgium)	1990
International School Campus	(Lyon, France)	1993
Flanders Expo	(Ghent, Belgium)	1986-1990
Hydor	(Gentbrugge, Belgium)	1992
Peterhead Academy	(Peterhead, UK)	2004

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 guarantee.

WWW.ALKORPROOF.COM



The British Board of Agrément have assessed the life expectancy of alkorPLAN® to be in excess of 30 years.



alkorPLAN® 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**.



Recycling System for Thermoplastic Membranes

All **RENOLIT** waterproofing membranes for roofing are part of the RoofCollect® collection and recycling programme.



The **RENOLIT** division responsible for the roofing activity has been approved to EN ISO 9001:2000.



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