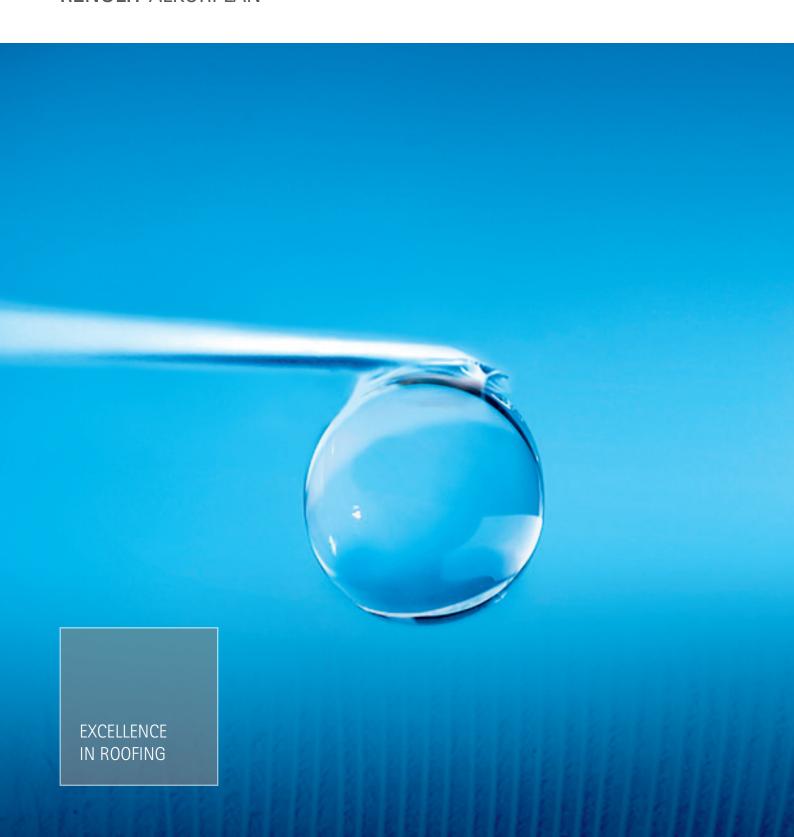


RENOLIT ALKORPLAN





Experience in roofing membranes RENOLIT ALKORPLAN

The RENOLIT 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 their flexibility and aesthetic qualities and are used in the waterproofing of new buildings and refurbishment projects.

The RENOLIT ALKORPLAN membranes have six main advantages:

Cost-effectiveness

- Economies on the installation costs: one single 30 m² 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)



Reduced installation time

As the RENOLIT 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 **RENOLIT** 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 m^2 up to 3.3 kg/ m^2 , depending on the thickness of the membrane.

Limited Maintenance

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

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

One roll **RENOLIT** ALKORPLAN of $30 \text{ m}^2 = 6 \text{ rolls of tradional bituminous}$ multilayer system



Museum of Art (Denmark)



The integrity of the seams

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

RENOLIT 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



RENOLIT 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 RENOLIT 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.



Rosemount NHS hospital (UK)



Vapour Permeability

The RENOLIT 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 RENOLIT ALKORPLAN waterproofing system over the existing one. A proportion of the water inside the old roofing system will diffuse through the membrane over time

Fire resistant roofing membrane

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



Sport Hall (Italy)



Trade entertainment Center (Russia)



Flexibility

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

Durability

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





International University Campus (France)



BMW Factory (Germany)



Transport station (Czech Republic)

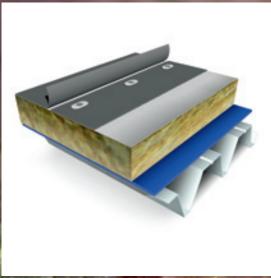
RENOLIT ALKORPLAN systems

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.

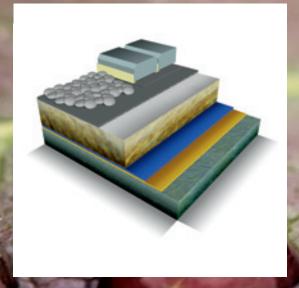
Ballasted system

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.











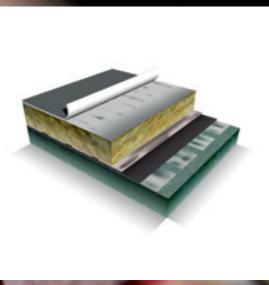
Groothandelsgebouw (The Netherlands)

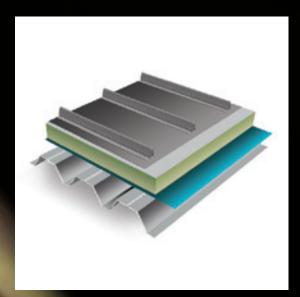
Adhered system

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.

RENOLIT ALKORDESIGN 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, and the heavy duty roof structure required to support them. The profiles are welded to the RENOLIT ALKORPLAN roofsheet, providing the aesthetic appeal of a seamed or rolled metal roof with all the advantages of single ply.









Hospital (Belgium)

Dogs Trust (UK)

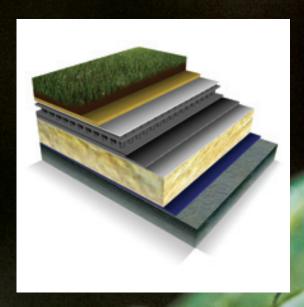
RENOLIT ALKORPLAN systems

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.

RENOLIT ALKORSOLAR

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. The white reflecting roofing membrane RENOLIT ALKORBRIGHT will lead to a lower air temperature around the photovoltaic modules, which will in turn lead to an increased return.











RENOLIT ALKORPLAN reference list

| Zara | (Zaragoza, Spain) | 2002 |
|--|---|-------------------|
| Plaza de Toros City Hall | (San Sebastian, Spain) (London, UK) | 1998 |
| Métro Supermarket | (Istanbul, Turkey) | 2000 |
| IKEA | (Hanau, Germany) | 1998 |
| BMW Characteristics and the second se | (Hams Hall, UK) | 1999 |
| Cherrybank Gardens Brighton Eye | (Perth, UK) (Brighton, UK) | 2002 |
| Da Vinci College | (Gorinchem, The Netherlands) | 2000 |
| Day-care Centre | (Stockholm, Sweden) | 2000 |
| Surgery in psychiatric hospital | (Stockholm, Sweden) | 2000 |
| Lawyers' office "Droogbak" School | (Amsterdam, The Netherlands) (Saxmundham, UK) | 1998 |
| Royal Vet College | (Herts, UK) | 2003 |
| Elf Total service station | (Séverac le Château, France) | 1998 |
| ING Bank New Generation Centre | (Amersfoort, The Netherlands) (Newhaven Edinburgh, UK) | 1998 1999 |
| Day-care Center | (Stockholm, Sweden) | 2000 |
| Ferrybanks School | (Waterford, Ireland) | 2001 |
| Office building | (Capelle aan de IJssel, The Netherlands) | 2005 |
| Ravenswood School Private houses Weideklaver | (Ipswich, UK) (Spanbroek, The Netherlands) | 2002 |
| Keighley Market | (Keighley, UK) | 2004 |
| Edenhall Tennis village | (Cork, Ireland) | 2005 |
| Dorey Centre | (Guernsey, UK) | 2000 |
| Appartments Office building | (Bovenkarspel, The Netherlands) (Tønsberg, Norway) | 2002 |
| Panorama Museum | (Bad Frankenheim, Germany) | 1996 |
| Airport station Satolas | (Lyon, France) | 1995 |
| Sainbury's | (Calcot, UK) | 2004 |
| Sport City Living ING Centre | (Cork, UK) (Budapest, Hungary) | 2004 |
| Tour Pléiade | (Bruxelles, Belgium) | 1992 |
| Futuroscope | (Poitiers, France) | |
| Sainsbury's | (Twickenham, UK) | 1998 |
| Siemens AG Trade-entertainment centre Europark | (Görlitz, Germany) (Moscow, Russia) | 1988 |
| Lyric House | (Guernsey, UK) | 2004-2003 |
| Park Theatre | (Hoorn, The Netherlands) | 2003 |
| Old people's home Freising | (Germany) | 1981 |
| BMW Factory Chassé theatre | (Dingolfing, Germany) (Breda, The Netherlands) | 1986 |
| Sport Hall | (Livorno, Italy) | 2003 |
| Silos | (Cestas, France) | 1996 |
| Swimming pool Teatro real | (Besançon, France) (Madrid, Spain) | 1993 |
| Halkade offices | (ljmuiden, The Netherlands) | 1999 |
| Ryde Pavilion | (Isle of Wight, UK) | 1992 |
| Jehovah's Witnesses Church | (Sweden) | 1999 |
| Lyon Auditorium City Business Park | (Lyon, France) (Plymouth, UK) | 1999 |
| Student Centre | (Cork, Ireland) | 2005 |
| Blackwells | (Oxford, UK) | 2002 |
| Office building Strogoff | (Schagen, The Netherlands) | 1998 |
| Airbus | (Moscow, Russia) (Toulouse, France) | 1993 |
| Bluecoat School | (Liverpool, UK) | 2003 |
| Sporthall De Wolfskamer | (Huizen, The Netherlands) | 1998 |
| Safeway | (Coventry, UK) | 1991 |
| Ford Motor Company Folleli theatre | (Golcuk-Kocaeli, Turkey) (Folleli, France) | 1998 1994 |
| Tesco | (Inverness, UK) | 1997 |
| Olympic Centre | (Warsaw, Poland) | 2004 |
| Saab Gazet van Antwerpen | (Glasgow, UK) | 1999 |
| McDonalds | (Antwerp, Belgium) (Moscow, Russia) | 2003-2004 |
| Swimming pool Het Keerpunt | (Zoetermeer, The Netherlands) | 1998 |
| La Charotterie | (Guernsey, UK) | 2003 |
| Appartments Development Finance Centre | (Cork, Ireland) (Antwerp, Belgium) | 1992 1990 |
| Restaurant Deleuil | (Lacanau, France) | 2001 |
| Private houses | (Damascus, Syria) | 1984 |
| RTVE | (Madrid, Spain) | 1981 |
| Private house Not 6 | (Lewisham, UK) (Brussels, Belgium) | 1992 |
| Holiday Inn | (Antwerp, Belgium) | 1995 |
| Hotel Kalidria | (Italy) | 2001-2002 |
| Banco di risparmiento | (Lucca, Italy) | 1984 |
| Montserrat Monastery Euroclear | (Barcelona, Spain) (Brussels, Belgium) | 2000-2004 1990 |
| International School Campus | (Lyon, France) | 1993 |
| Flanders Expo | (Ghent, Belgium) | 1986-1990 |
| Hydor | (Carthauran Balaina) | 1992 |
| Peterhead Academy | (Gentbrugge, Belgium) (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 EDTA, but are still subject to the natural change over time. Are excluded from the quarantee: aesthetic considerations in case of partial repair of deficient membrane covered by the quarantee.

WWW.ALKORPROOF.COM



The British Board of Agrément have assessed the life expectancy of RENOLIT ALKORPLAN F used in the United Kingdom to be in excess of 30 years



RENOLIT 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.



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





LAYDEX Ltd. - Unit 3 - Allied Industrial Estate - Kylemore Road - Dublin 10 T +353(0) 1 642 6600 - F +353(0) 1 642 6601 - sales@laydex.ie

LAYDEX (NI) Ltd. - Units 4 & 5 Falcon Way - Belfast BT 12 6 SQ T + 44 (0) 2890 382 223 - F + 44 (0) 2890 382 230

RENOLIT Belgium N.V. - Export Dpt. - Industriepark De Bruwaan 43 - 9700 Oudenaarde - Belgium T +32 (0)55 33 98 51 - F +32 (0)55 31 86 58 - renolit.belgium@renolit.com



Rely on it.