



# REFURBISHMENT OF ROOFS

## RENOLIT WATERPROOFING

EXCELLENCE IN ROOFING

Visit our website [WWW.ALKORPROOF.COM](http://WWW.ALKORPROOF.COM)



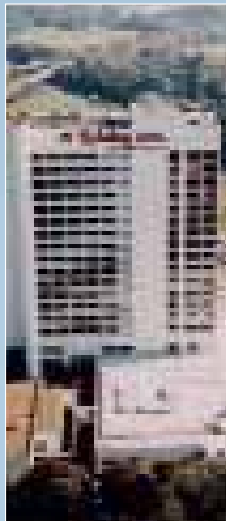
Expo Hannover pavilion "Der Grüne Punkt"



## REFURBISHMENT OF FLAT ROOFS



Project: Heyzel Palace, Brussels, Belgium, 1986-1994  
Product: AlkorPlan F (Mechanical Fastening, 20,000 sqm) Old waterproofing: Bitumen



Project: Holiday Inn hotel, Antwerp, Belgium, 1995  
Product: AlkorPlan L (2,400 sqm) Old waterproofing: Bitumen

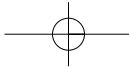
**RENOLIT WATERPROOFING** is specialised in the production of synthetic single ply waterproofing membranes

for roofs, garden ponds, swimming pools, civil engineering and damp proof membranes.

During the last 30 years, **RENOLIT WATERPROOFING** have produced more than 200 million square meters

of membranes for waterproofing applications in all types of climatic conditions.

Project: Aquaine Sios (Cetus), France, 1995  
Product: AlkorPlan F (Mechanical Fastening, 2,000 sqm)  
Old waterproofing: Bitumen



THE PRODUCT RANGE



Project: Nestlé Factory (Glasgow, UK, 2004)  
Product: AlkorPlan® A (Adhesive, 800 sqm)  
Old waterproofing: bitumen



Project: Makro Elc. - Metro Group  
(Glasgow, UK, 2004)  
Product: AlkorPlan® A (Adhesive, 50,000 sqm)  
Old waterproofing: bitumen

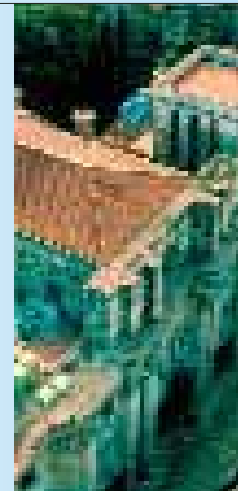


Project: Nestlé Waters France - Perrier  
Factories (Vergèze, France, 2000-2001)  
Product: AlkorPlan® A (Adhesive, 18,500 sqm + 19,700 sqm)  
Old waterproofing: bitumen

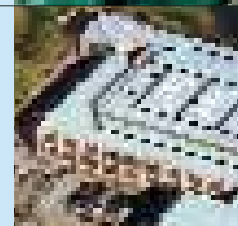
THE PRODUCT RANGE

RENOLIT WATERPROOFING produces two membranes types suitable for the refurbishment of roofs:

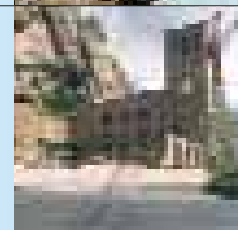
- AlkorPlan® (made of PVC-P): experience and proven quality in synthetic membranes.
- AlkorFlex® (in modified PE): flat roof membranes with enhanced safety.



Project: Torosa Cathedral (Tingoga, Spain, 1998)  
Product: AlkorPlan® L (Under Balast, 3,000 sqm)



Project: Evert House (Oxford, UK, 2000)  
Product: AlkorPlan® A (Adhesive, 1,500 sqm)  
Old waterproofing: bitumen

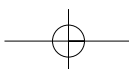


Project: Monserat Abbey (Monistrol de Montserrat, Spain, 2000-2004)  
Product: AlkorPlan® A (Adhesive, 4,600 sqm)  
Old waterproofing: bitumen



Project: Bari Cathedral (Bari, Italy, 1980)  
Product: AlkorPlan® Mechanical (Adhesive, 2,000 sqm)  
Old waterproofing: bitumen

EXCELLENCE IN ROOFING



## ADVANTAGES OF SYNTHETIC MEMBRANES



Project: Saint Joseph Hospital (Mons, Belgium, 1992)  
Product: AlkorPlan® A (Adhered, 3,500 sqm)  
Old waterproofing: bitumen

### Advantages of synthetic membranes compared to the "traditional" bituminous waterproofing solutions:

- Light weight : the membranes half the cost of bituminous membranes
- Reduced Fire Risk : seams are welded without the use of naked flame.
- Increased speed of installation : one single 30 m<sup>2</sup> roll replaces up to 3 bituminous rolls.
- High vapour permeability : AlkorPlan® membranes have the capability to breathe much more easily than traditional bituminous systems (  $\mu$ sd up to 20 times lower!!).

Consequently the removal of the old waterproofing system prior to renovation may be unnecessary.

- **RENOLIT WATERPROOFING** membranes benefit from a 10 years manufacturers guarantee.
- Ability to install over old bituminous waterproofing systems, with or without a separation layer depending on the membrane used.

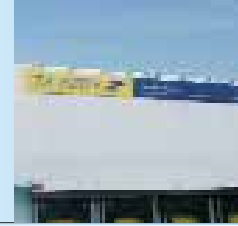
Project: Euroville (Lille, France, 2000-2001)  
Product: AlkorPlan® F (Mechanical fastening, 35,000 sqm)  
Old Waterproofing: Bitumen



Project: Classé Theatre (Breda, The Netherlands, 2002)  
Product: AlkorPlan® F (Mechanical fastening, 1,500 sqm)  
Old waterproofing: Synthetic



Project: Blackwells Library (Oxford, UK, 2003)  
Product: AlkorPlan® F (Mechanical fastening, 300 sqm)  
Old waterproofing: bitumen



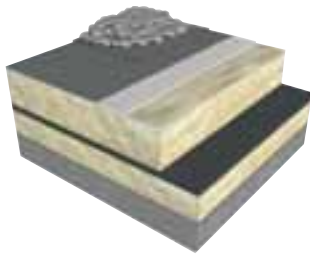
Project: Postal sort-out center (Bordeaux, France, 2003)  
Product: AlkorPlan® F (Mechanical fastening, 4,000 sqm)  
Old waterproofing: Bitumen

## The renovation systems

The most commonly used systems for the refurbishment of old bituminous roofs without the removal of the old waterproofing medium are:

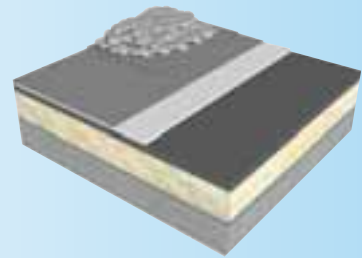
### For ballasted roofs:

With extra insulation



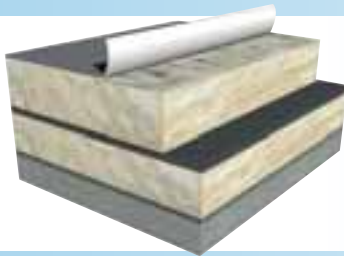
- Ballast
- Protection layer AlkorPlus® 81005/AlkorPlan® 35121 (if required)
- Waterproofing membrane AlkorFlex® L, AlkorPlan® L
- Separation layer (AlkorPlus® 81001 on EPS or PUR insulation, AlkorPlus® 81005 on bitumen surfaced insulation boards) (only on AlkorPlan®)
- Insulation
- Old bitumen/vapor control layer

Without extra insulation



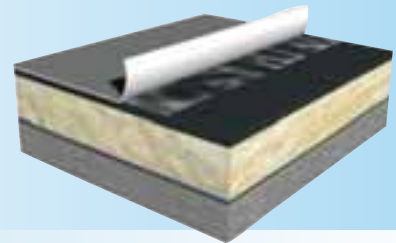
### For non-ballasted roofs on a concrete structure:

With extra insulation



- Waterproofing membrane AlkorPlan® A,
- Insulation
- Old bitumen/vapor control layer

Without extra insulation



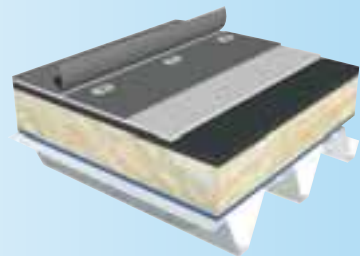
### For non-ballasted roofs on a wooden structure or on steel deck:

With extra insulation



- Waterproofing membrane AlkorFlex® F, AlkorPlan® F, mechanically fixed
- Separation layer (AlkorPlus® 81001 on EPS or PUR insulation, AlkorPlus® 81005 on bitumen surfaced insulation boards) (only on AlkorPlan®)
- Insulation
- Old bitumen/vapor control layer

Without extra insulation



EXCELLENCE IN ROOFING



## METAL ROOF REFURBISHMENT



Project: Doctor's private cabinet and psychiatric hospital  
Stockholm, Sweden, 2000  
Product: AlkorDesign (150 sqm)  
Old waterproofing: zinc

The AlkorPlan Profile System combines the appearance of an aluminium, lead, zinc or copper roof with the advantages of AlkorPlan® synthetic waterproofing membranes.

The AlkorPlan® Profile System consists of 2 elements:

- AlkorPlan® F mechanically fastened
- Extruded AlkorPlan® PVC-P profiles, hot air welded to the roofing membrane.

The AlkorPlan Profile system avoids many of the disadvantages of metal roofing systems.

- **Cost-effectiveness:** the AlkorPlan Profile System can generate important reductions in the cost of the system and the cost and weight of the roof structure - more than 40% in some of the more complex cases.

• **Shorter Installation time:**

- Fixing without sliding clamp nails or distribution plates
- Neater, integrated detailing
- Hot air welding

• **Less demanding for the structure:**

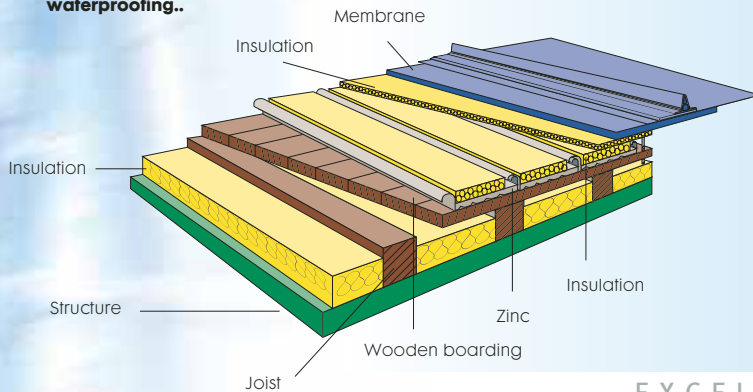
- The vapour permeability of the membrane reduces the risk of condensation and avoids ventilation problems.
- Thanks to the flexibility of the AlkorPlan® waterproofing membranes, they may be easily installed on all geometric shapes of roofs.

- **Limited Weight:** The AlkorPlan® waterproofing membranes weigh no more than 1,8kg/m<sup>2</sup> (1,5mm thickness), this allows savings to be made on the roof structure.

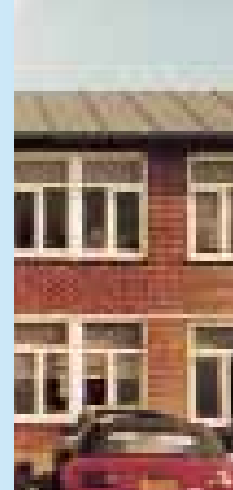
- **Limited maintenance:** in general, a visual inspection and a simple cleaning of the gutters and the outlets is sufficient.

Furthermore, in case of refurbishment, the old metal waterproofing needn't be removed if the mechanical properties allow it. This will keep the roof refurbishment costs low.

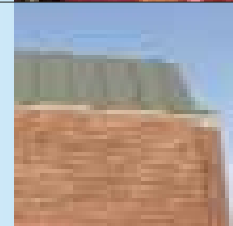
**Example of the refurbishment of an old, metal roofing system with maintenance of the old waterproofing..**



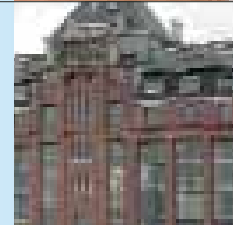
Project: Lawyers office 'Troostwijk' Amsterdam, The Netherlands, 1998/1999  
Product: AlkorDesign (5.000 sqm)  
Old waterproofing: zinc



Project: Morgan Sindell Sawston  
Leicester, Leicestershire, UK, 2000  
Product: AlkorDesign (300 sqm)  
Old waterproofing: zinc

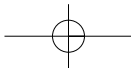


Project: Peterhead Academy  
Peterhead, UK, 2000  
Product: AlkorDesign (1.050 sqm)  
Old waterproofing: bitumen



Project: Sios Amsterdam  
Amsterdam, The Netherlands, 1999  
Product: AlkorDesign (7.000 sqm)  
Old waterproofing: zinc

EXCELLENCE IN ROOFING



# RENOLIT WATERPROOFING

**RENOLIT Great Britain LTD**  
Station Road  
Cramlington, Northumberland  
NE23 8AQ  
Great Britain  
Tel: +44 (0)1 670 71 82 03  
Fax: +44 (1)1 670 71 83 67



The British Board of Agreement have assessed the life expectancy of AlkorPlan® to be in excess of 25 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 Alkor Draka.



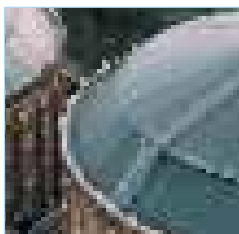
All **RENOLIT WATERPROOFING** membranes for roofing are part of the RoofCollect® collection and recycling programme.



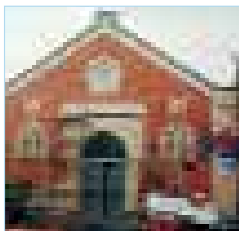
**RENOLIT WATERPROOFING** is responsible for the roofing activity and has been approved to EN ISO 9001:2000.

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 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 a deficient membrane covered by the guarantee.

Project: Gårdsplaner, Stockholm, Sweden, 1993.  
Product: AlkorPlan® (mechanical fastening, 5500 sqm)  
Old waterproofing: bitumen



Project: Zruco van Vlietweg (Cent. Belgium, 1997)  
Product: AlkorPlan® (Adhesive, 1500 sqm)  
Old waterproofing: Bitumen



**RENOLIT WATERPROOFING: EXCELLENCE IN ROOFING**

Visit our website [WWW.ALKORPROOF.COM](http://WWW.ALKORPROOF.COM)

