

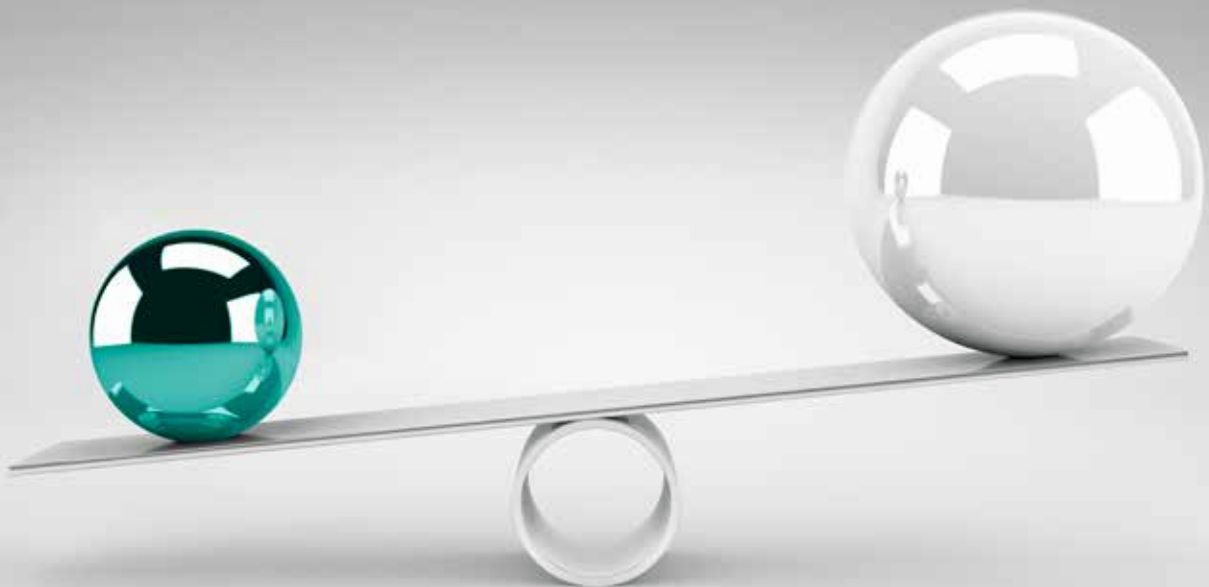


Rely on it.

Less is more

A new paradigm in roofing

RENOLIT ALKORPLAN Smart



RENOLIT
ALKORPLAN
roofing products



All the advantages of the smartest roofing membrane

RENOLIT ALKORPLAN Smart

A NEW PARADIGM IN WATERPROOFING ROOFING SECTOR

The future of industry lies in efficiency: the climate change; the increasing demand for natural resources and energy; and simply the consciousness that there is not a planet B; are driving mankind to find ever more efficient solutions and products.

In its permanent search for excellence, RENOLIT R&D laboratory has created a revolutionary product for the roofing industry, offering the best performance whilst minimizing the consumption of resources.

The concepts of efficiency and sustainability are the key features of this brand new product. Discover on the next pages why we called it "Smart".



Efficiency

Less resources,
better performance.

Efficiency can be defined as the capacity to provide better performance using less resources. Historically industrial sectors are developing highly efficient products, in order to provide cost effective solutions. This leads to many advantages: the optimisation in the production process, long term investments, better return on investment, better performance of the main functionality of the product, that will further lead to enhanced results.

With only 1.2 or 1.5 mm of thickness, **RENOLIT ALKORPLAN Smart** provides not only water impenetrability, mechanical resistance and chemical resistance, but also energy saving, sustainability, versatility, aesthetics, resistance to UV radiation and longer durability.

Sustainability

The balance of nature

Sustainability is the balance between the needs of the present generation and the resources available on Earth to meet them. To maintain the living standards of 2018, mankind would need 1.7 planets, many resources will be depleted soon, meaning that very rapidly consequently in the near future many resources will not be available anymore. Hence, using less resources to obtain better performances is not only a choice, but an urgent necessity.

Thus providing a higher durability membrane whilst being thinner, **RENOLIT ALKORPLAN Smart** is far more sustainable than any other synthetic membrane. A positive approach between the resources used and the performance provided in its whole lifespan. And at the end it can be totally recycled.

The EPD (Environmental Product Declaration) clearly demonstrates that the LCA (Life Cycle Assessment) of the **RENOLIT ALKORPLAN Smart** is extremely positive.



Ultrathin, ultradurable

Incremental innovation in formulation

RENOLIT ALKORPLAN Smart breaks the rules: thanks to its innovative formulation, **RENOLIT ALKORPLAN Smart** is an ultrathin membrane -just 1.2 or 1.5 mm thick providing far better features than other thicker membranes. The quality of the controlled raw materials, the innovative production process and the exclusive cool pigments make **RENOLIT ALKORPLAN Smart** a revolutionary solution based on efficiency and sustainability.

Up to 20 years guarantee on UV resistance



Technology

Solar Shield Technology

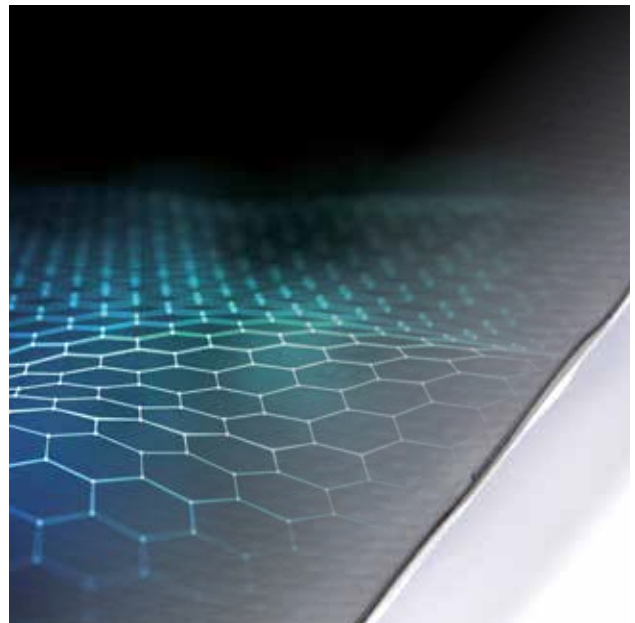
An innovative solution developed by our R&D Department using special "cool pigment" to lower the temperature of your roof.

A roofing membrane is designed to provide your building with a watertight covering. **RENOLIT ALKORPLAN Smart** goes further: the Solar Shield Technology gives the membrane unique features and an uncomparable longevity.

The Solar Shield Technology is a special coating that protects the upper surface of the membrane from UV rays, which are widely reflected.

This breakthrough technology provides a better protection of the building surface exposed to the sun, thus reducing the ageing process.

Built-in Solar Shield Technology







Cool colour roof

A revolutionary solution to keep your building cool

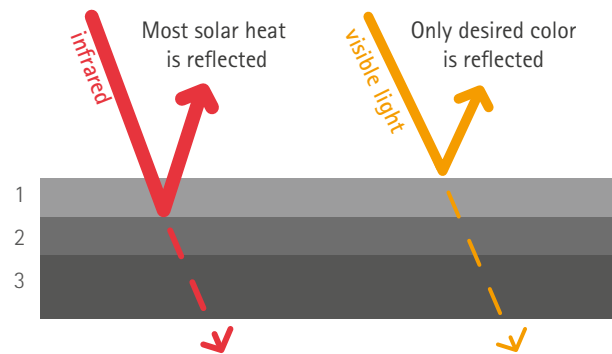
The demand for cool roofs is increasing, as well as for variation in colour.

Thanks to its specially coloured coating, the reflective and emissive skills of **RENOLIT ALKORPLAN Smart** are much higher than the usual coloured surface, by up to 48%.

Furthermore, by reducing the temperature of the roof, the insulation materials will also last longer ensuring a positive impact in the overall performance of the roofing system.

What is a Cool coloured Roof?

A cool coloured roof is a material where special pigments have been added in order to boost the solar reflectance abilities. Cool coloured roofs are often of even darker tones as almost half of the sun's radiation reaches the Earth surface in the form of infrared (IR) energy. Consequently the cool pigments have been formulated to reflect much of that IR energy, and have proven to be very effective with darker colours as well. Due to this technology, two membranes with the same colour might look identical but will perform differently if one of them incorporates the special Cool Colour pigments.



1 UV BLOCKING COATING 2 COOL COLOUR ROOFING MEMBRANE 3 SUPPORT MATERIAL

Increased Solar Reflectance Index

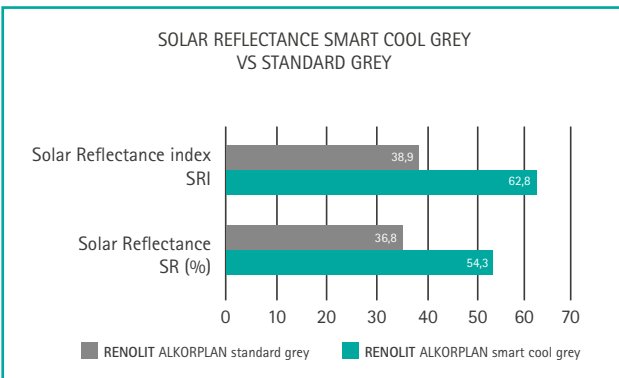
Combining high UV reflection rate and beautiful colours

Because of the large surfaces exposed to the sun's rays during the day, unlike other surfaces, roofs are the main reason for the overheating of a building. Thus, when discussing the means to save energy in the envelope of a building, great attention should be paid to the roof. Many government entities and volunteer certification bodies worldwide are pushing architects and owners to include cool roofs in their buildings' design.

The SRI (Solar Reflectance Index) is an index created to compare the cool roof properties of different roofing materials and products, by integrating the reflectivity and emissivity

of such products in a single parameter. Under the same solar radiation, roofing products with high SRI will have lower temperature, i.e. will yield cooler roofs.

This data leads to a better SRI (up to + 62%) making **RENOLIT ALKORPLAN Smart** the best choice to obtain your cool colour roof.



Coloured coating

	SR*	SRI**
RENOLIT ALKORPLAN Smart Grey	54,3	62,8
RENOLIT ALKORPLAN Smart Ivory	68,3	82,5

* SR = Solar Reflectance R (%)
 ** SRI = Solar Reflectance Index

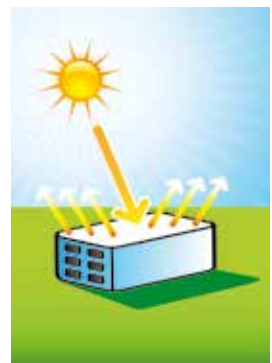
What is a Cool Roof?

A Cool Roofing product is characterised by higher solar reflectance in comparison to conventional roof materials of the same colour and high infrared emittance values. A Cool Roof minimises solar heat gain keeping roof surfaces cooler under the sun. This is due to the materials used, which both reflect the solar radiation (solar reflectance) and release the absorbed heat (infrared emittance). The cooler the roofs get, the more energy and money they save. Cool roofs are usually light coloured.

Source: ECRC



Temperature with black roofing membrane
 Surface roof = 80 °C
 Within = 30 °C



Temperature with **RENOLIT** cool roof membranes
 Surface roof = 40 °C
 Within = 25 °C



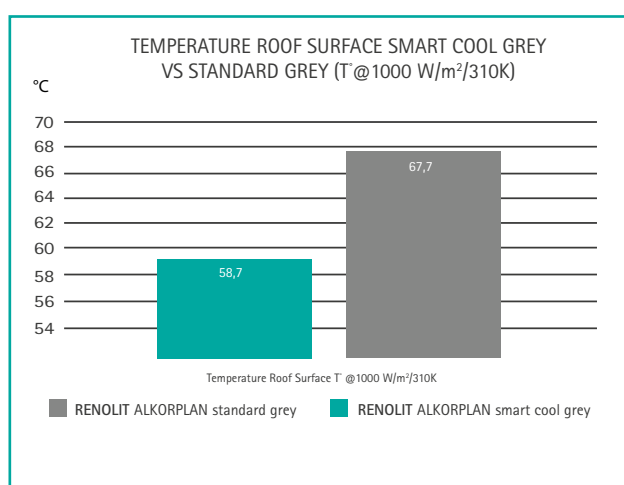


Energy Saving

Reducing the environmental footprint of your building

The construction sector is responsible for more than 40% of energy consumption worldwide. When designing or refurbishing buildings, great attention should be paid to efficient solutions that ensure the best performance with the minimum resources.

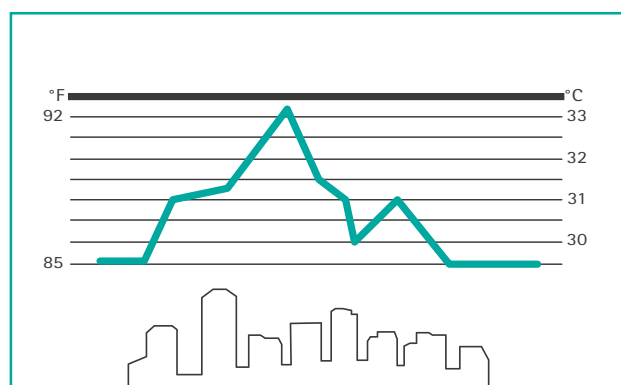
As a cool colour roofing product, **RENOLIT ALKORPLAN Smart** allows energy savings in your building, by decreasing the amount of power required for air conditioning as less heat will pass from the roof surface to the inside. If an airco plant is not present, cool coloured roofs can help to avoid the need for air conditioning systems.



Against heat island effect

Decreasing the temperature of our cities

The advantages of a cool roof are not limited to your building. Any cool roof helps fight the heat island effect, the well known phenomenon of the overheating of cities when compared with the countryside, up to an average of 4-6 degrees. Less heat in your city as a whole reduces CO₂ emissions, generated by heating systems, therefore improving air quality and decreasing pollution. Won't you help?



Aesthetics

Forever young

With **RENOLIT ALKORPLAN Smart** you can relax: your desired final result will remain unchanged for decades.

Usually cool roofs are light coloured or even totally white, making them inconvenient in some urban contexts or in locations with special needs (airports, wild protected sites, etc.).

RENOLIT ALKORPLAN Smart, on the contrary, can be used in every setting, thanks to its neutral colours. In addition, the cool pigments of the special Solar Shield Technology keep the colour totally stable.



Versatility

One solution for every application

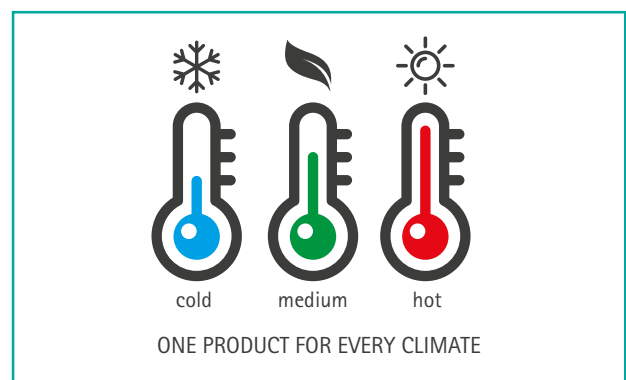
A universal roofing membrane that can be applied in every climate condition on every building type.

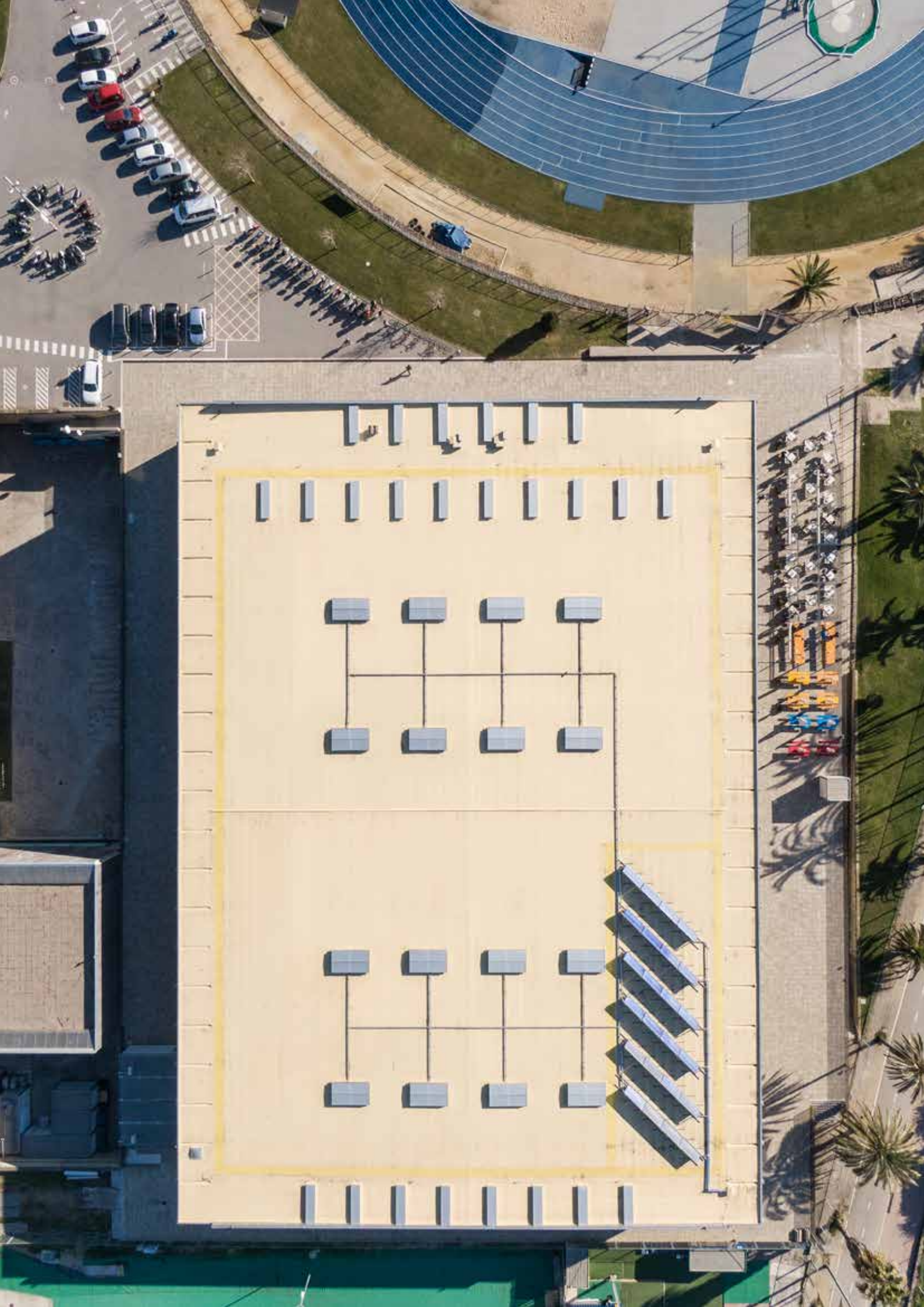
Thanks to its unique technology, **RENOLIT ALKORPLAN Smart** can be applied in every climate conditions, from the North Pole to the Equator.

The traditional colours of **RENOLIT ALKORPLAN Smart** are meant to be used everywhere, perfectly combining with the surrounding environment and meeting the local requirements. Moreover, **RENOLIT ALKORPLAN Smart** can be applied on flat roofs as well as on sloping roofs, on new constructions as well as on refurbishments.

Its light weight makes it the right option for every kind of roof, even the ones where it is not possible to add other traditional roofing materials.

Still wondering if it fits your building?









Compliance to green labels (BREEAM, LEED, VERDE)

Efficient solutions to
reach the best rating

More and more governments and owners are prepared to have green labeled buildings, an essential requirement to acquire more value in the market and a practical way to demonstrate a real commitment in protecting the environment.

Thanks to the production process, the controlled raw materials and the superior SRI, **RENOLIT ALKORPLAN Smart** is BREEAM, LEED and VERDE compliant, helping you achieve the best rating levels.

Safety

Light, strong and reliable

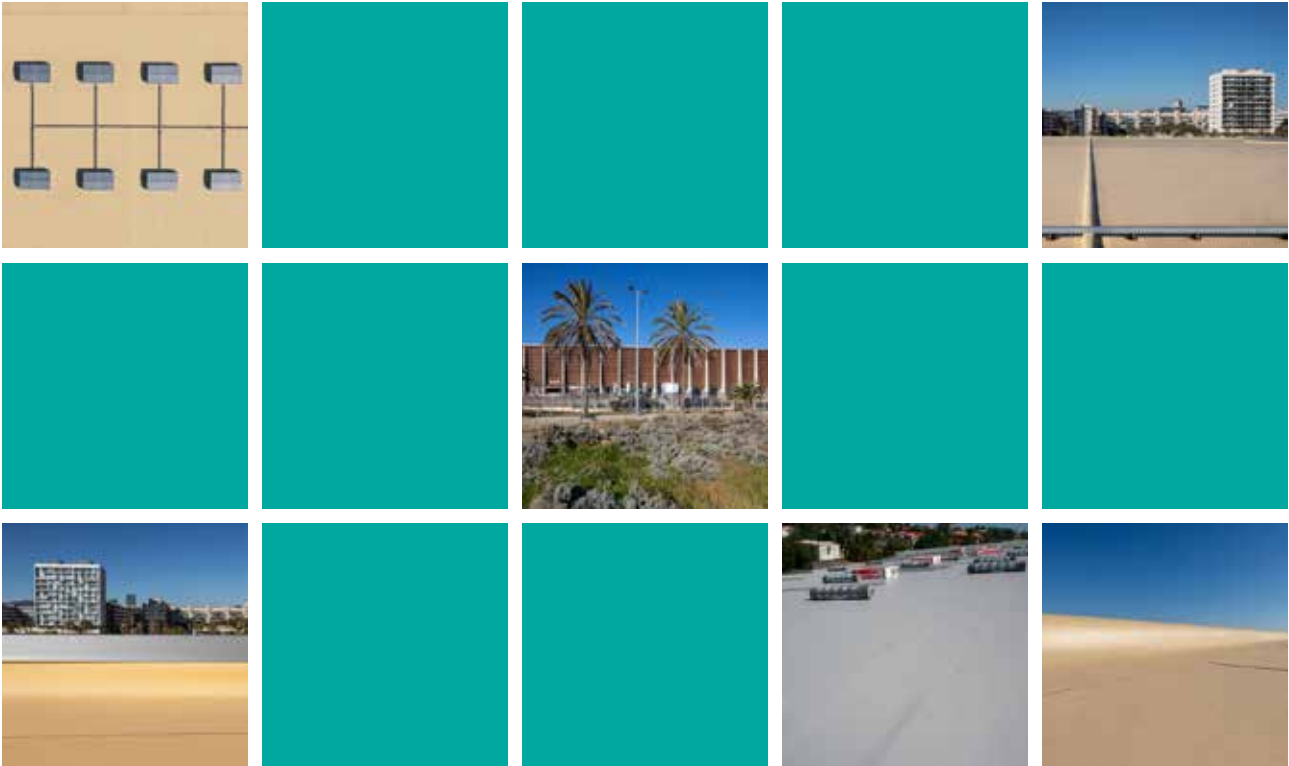
RENOLIT ALKORPLAN Smart offers a high chemical resistance to different agents and an excellent fire resistance. The light weight makes it easy and safe to handle on the jobsite and the application method avoids open flames on the jobsite. Now, do you see why we called it Smart?

Easier maintenance

A good maintenance service should keep your roof fully clean and functional for decades. Thanks to the smoothness of the special coating, the maintenance of **RENOLIT** ALKORPLAN Smart is therefore, "easier, quicker and cheaper."







The British Board of Agrément have assessed the life expectancy of RENOLIT ALKORPLAN F used in the United Kingdom to be up to 40 years.

RENOLIT ALKORPLAN roofing products and system 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 only system for fixing solar panels on flat roofs that has been approved by DIBT (German Institute for Building Technology).

The RENOLIT Ibérica S.A. factory in Sant Celoni (Barcelona) is approved to ISO 9001/14001.

www.renolit.com/roofing

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Rely on it.