

SIKA FULL RANGE SOLUTIONS FOR CONSTRUCTION:

 WATERPROOFING	 CONCRETE	 REFURBISHMENT	 DISTRIBUTION
 SEALING AND BONDING	 FLOORING	 ROOFING	 INDUSTRY

SEE SARNAFIL AT:

 IKEA, DONCASTER	 EMIRATES STADIUM, LONDON	 ST DAVID'S HOTEL CARDIFF BAY
 ST PANCRAS, LONDON	 PASSENGER TERMINAL, STANSTED AIRPORT	 BALTIC CENTRE, GATESHEAD

WHO WE ARE

Sika Limited is part of the global Sika Group, specialising in the manufacture and supply of chemical based products for construction and industry. Sika is a world-leader in its field with subsidiaries in more than 80 countries, 16,000 employees, and annual sales of CHF 4.8 billion (£3.3bn). We are also committed to providing quality, service, safety and environmental care.

In the UK, we provide market-leading solutions for concrete, waterproofing, roofing, flooring, refurbishment, sealing & bonding, and industry, and have manufacturing sites in Welwyn Garden City, Preston, and Leeds with 700 employees and a turnover of £190 million.

The information, and, in particular, the recommendations relating to the application and end use of Sika® products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.

 Certificate No. EMS 45308	 Certificate No. FM 12504
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SIKA LIMITED

Sika Sarnafil,
Watchmead,
Welwyn Garden City,
Hertfordshire, AL7 1BQ

Contact

Tel 01707 394444
Fax 01707 329129
Email sarnafilplus@uk.sika.com
www.sarnafilplus.co.uk



SARNAFIL PLUS

PROFESSIONAL ROOF REFURBISHMENT SERVICE

THE TOTAL COST OF ROOF FAILURE



WHY REFURBISH?

Roof refurbishment is about more than just 'fixing' the leaks. Have you ever considered what would happen if your roof failed? What is the potential cost to the inhabitants of that building or workplace? And what does it mean for the person managing that facility and their annual budget?

From a long term perspective, investing in a proven refurbishment solution for your roof is a viable option especially for owners and managers concerned with multiple buildings, as patching up your roof year after year is a costly measure both in terms of financial requirement, and the operational time and resource needed to continually deal with these ongoing issues. In addition it is crucial that the contents within a building are protected, especially for those buildings containing high value assets or operational systems. Life-cycle costs and the longevity and durability of the membrane become critical considerations when you're refurbishing your roof for the long-haul, as does the continual support and expertise of your product manufacturer.

With building requirements becoming ever more stringent, upgrading the thermal performance of a building is also becoming a key factor in the decision to refurbish existing roofs. Upgrading insulation is an ideal way of saving energy and will help comply with UK Building regulations, and also help to achieve your required or ideal U-values.

WHAT CONSIDERATIONS TO MAKE...

When choosing a roofing systems provider you should consider:

- Will experienced and trusted contractors be installing your roof?
- Will your roofing systems provider undertake a detailed survey and evaluation of your roof in order to fully understand its requirements?
- Does your roofing systems provider have an expert technical team on hand to ensure that the quality of installation meets their exact demands?
- Does your identified roofing system provider supply a guarantee and does this cover materials, partner products, workmanship, and the existing deck?
- Will there be an aftercare maintenance service package available once the roof installation is complete?



DESIGN CONSIDERATIONS

Following a detailed inspection of the existing roof, the following design factors should be established:

- The required u-value of the roof
- The extra loading to the existing roof structure
- The required compressive strength of the insulation where permanent plant or equipment is located upon the roof surface
- The required fire resistance
- Determine method of attachment/ adhesion / mechanical fixing / ballasting
- Any particular acoustic requirements
- Wind uplift
- Drainage including falls
- Lighting Protection
- Safety (fall arrest or captive enclosure)
- Rooflights

All of the above will be covered and appropriate solutions selected during the comprehensive Sarnafil Plus roof survey.

GUARANTEE OPTIONS

You also have to make a decision about the type of guarantee you want with your roof. Many Single Ply manufacturers typically provide 'product only guarantees', in which the manufacturer will replace material but won't cover installation. There are also options for material and labour guarantees that have high premiums.

Sarnafil Plus only offers 'single point guarantees', which are fully included as part of our service. We believe the Sarnafil Plus guarantee is the most comprehensive in the market, and covers the complete system and its components, as well as workmanship when installed by one of our carefully selected Sarnafil Plus contractors. Sarnafil Plus is also the only manufacturer/service to guarantee attachment to an existing deck, as Sika Sarnafil values this as an essential component when working on refurbishment projects.

Selecting a roofing system with a trustworthy guarantee is an essential requirement for all those involved in maintaining and refurbishing a building.

ABOUT SIKA SARNAFIL PLUS



WHY CHOOSE US

Building owners, managers, and facility operators can assume responsibility for thousands of square metres of building area, and Sika Sarnafil understands the pressure that comes with this. That is why we have developed Sarnafil Plus, our flagship refurbishment offer.

- The world's leading single ply manufacturer established over 50 years ago
- Product Life expectancy of over 40 years*
- Detailed pre-installation survey and assessment
- 20 year single point guarantee – covering the products and the installation
- Registered installers

SURVEY PLUS – WE MAKE THE DECISIONS SO YOU DON'T HAVE TO

Sarnafil Plus takes the responsibility away from the client and passes it to our dedicated Surveyors who will conduct a comprehensive roof survey to determine which system is suitable for your roof. During the survey a core sample will be taken to assess the current roof construction and the condition of the substrate. All of Sika Sarnafil's partners including Kingspan, SFS Intec, Latchways Safety Systems and Brett Martin Daylight Systems will also have input in the survey to ensure all variables of the roof are covered.

*Independently assessed by the British Board of Agrément (BBA) to last in excess of 40 years, in their opinion.



“THIS IS A ROOF REFURBISHMENT SERVICE THAT GIVES YOU COMPLETE PEACE OF MIND”

SPECIFICATION PLUS

Following the roof survey our technical team will create a bespoke specification including Project specific detail drawings, Tapered insulation plans and roof layouts (where required), U-Value Calculations, Wind Uplift Calculations, Condensation Risk Analysis and Sika rain water outlet flow rate calculations.

SARNAFIL PLUS SINGLE POINT GUARANTEE – AN EXTRA LAYER OF PROTECTION

As our flagship product, the Sarnafil Plus package offers only a single point guarantee option, ensuring that you are protected against the unlikely problems that may arise from the failure of Sika Sarnafil membranes caused by incorrect design, defective materials, or poor workmanship, through the issue of a Sarnafil Plus Product Guarantee and our Inspection Certificate. Unlike others in the market, the Sarnafil Guarantee also covers an existing substrate if it is deemed adequate.

ONGOING SUPPORT

A building's roof can fail for a number of reasons, most commonly from general deterioration over its lifetime, ever changing weather conditions and temperatures, building movement or settling, and unsuitable design. What often doesn't change is the continual time and investment needed to maintain roofs once they have been installed, with large proportions of refurbishment budgets being re-invested into roof management every year.

But this doesn't have to be the case. The Sarnafil Plus service also includes a roof management plan, which comprises of ongoing support from our nationwide network of Sika Sarnafil field technicians who will undertake regular inspections of your roof after the first 5 years after installation, and if needed, routine remedial work for maintenance will be carried out by our registered installers.

Periodic inspection and maintenance of roofing assets are the most important elements of a successful roof management programme, and in turn are proven to reduce ownership costs and leak frequency, extend the roof's life cycle and most importantly, provide facilities and building management operations with fewer interruptions.



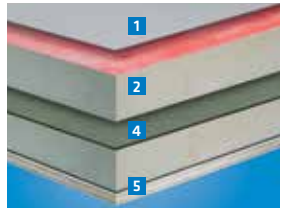
SARNAFIL PLUS PRODUCT INFORMATION

SARNAFIL REFURBISHMENT OPTIONS

Sika Sarnafil is the leading manufacturer of single ply roofing systems. Essentially our single ply membrane is a strong, flexible PVC material. All permanent joints are fusion welded via a hot air heat welding process. It can be either mechanically fixed, fully adhered or loose laid ballasted to the roof surface.

Sarnafil Plus is able to provide building owners and/or their agents with a comprehensive range of refurbishment system options. Sarnafil Single Ply membranes offer real benefits to our customers.

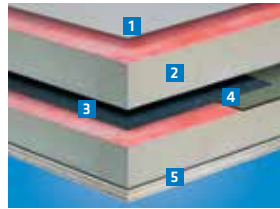
Overlay



With this option, the existing waterproofing is used as a vapour control layer, subject to a detailed examination and an evaluation of how it is attached to the substrate. This will ensure that the new roof will not fail due to wind uplift. Overlays can be carried out using Sika Sarnafil adhered, mechanically fastened or loose laid ballasted systems. Examples of where an overlay would be recommended are;

- If the roofing system needs to be upgraded to meet the requirements of Building Regulations Part L (England & Wales), or SBSA Technical Handbooks (Scotland).
- If there is limited moisture in the current system that has not yet affected the roofing system

Partial Strip

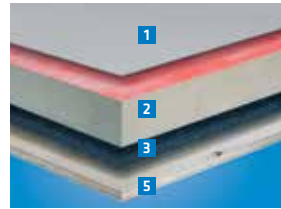


If the roof has been leaking in a specific contained area, or the type of roofing used originally can be removed without damage to the thermal insulation or structure, a partial strip may be recommended to prepare the roof for refurbishment. Examples of where a partial strip would be recommended are;

- If the roof elements are individually attached
- If localised removal and replacement can take place
- If elements of the original roof build-up can be utilised without compromising the integrity of the system

- Installation without naked flames, removing fire related health and safety concerns
- Improved energy efficiency through thermal upgrading, reducing carbon emissions and whole life cost
- A wide variety of system options, ensuring the best solution for each individual application
- High vapour permeability (Sarnafil G/S membranes), which enables the overlay of existing waterproofing (subject to survey)
- Minimal disruption if an overlay can be used
- BBA life expectancy exceeding 40 years*
- BRE accredited thermal details to save further energy

Complete Strip



If the roof has been leaking for some time or previous attempts to repair a leaking roof have failed, a complete strip may be required to remove wet thermal insulation or deck. Where insulation is wet or excessively 'damp', leaving it in place will have a negative effect on any attempts to replace the waterproofing. It will provide little or no thermal benefit and will increase the risk of premature failure. A complete strip may also be required if a major component has failed and is beyond repair. Examples of where a complete strip would be recommended:

- If wet/saturated insulation has affected the bond quality of the existing system
 - If the material used for the original deck is no longer performing due to water ingress
 - If the thermal properties of the insulation have created a cold bridge
 - If a steel deck has corroded and needs to be replaced
- If the structural deck is unable to perform as designed

Functional Upgrades



As part of a Sarnafil Plus roof refurbishment project, we can upgrade the functionality of your roof to provide thermal upgrades, green roofs and solar PV arrays.

Solar solutions can utilise polycrystalline and monocrystalline PV arrays, as well as bifacial solar PV systems.

KEY

1. Sarnafil membrane
2. SarnaTherm insulation
3. Sarnavap vapour control layer
4. Existing roof covering
5. Roof deck

*Independently assessed by the British Board of Agrément (BBA) to last in excess of 40 years, in their opinion.

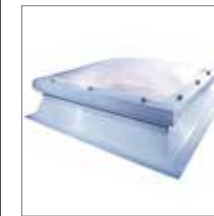
ADDITIONAL PRODUCTS

Sarnafil Constant Force Post and Sarnafil Versirail Edge Protection



Sarnafil constant force posts and Sarnafil Versirail ensure health safety and compliance with Working at height regulations. All roofs require some form of access for initial installation, general maintenance, Structural/performance checks for warranty maintenance, and Plant access. A guardrail around the perimeter of the roof is the easiest way of minimising risk of falls from height.

SarnaLite Rooflights & Access Hatches



SarnaLite dome unit provides excellent insulation, and saves energy with options to reduce the U-value to as low as 0.95W/m²K. For ease of installation the tapered kerb foot does not require timber fillets and an integral membrane clamp holds the roofing membrane in place.

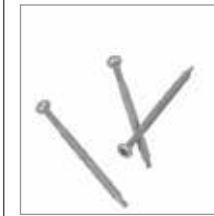
In addition to the standard dome features, the architecturally inspired SarnaLite Ultra delivers maximum security and high insulation in a sleek, stylish design package. Tamper proof fixings are concealed beneath a modern aluminium security frame, and a secret lock system allows domes to be installed and locked securely into place providing the highest possible security level.

SarnaTherm Insulation



The SarnaTherm range encompasses products suitable for use in adhered, mechanically fastened, loose laid ballasted and green roofing applications that have been tested for compatibility with other Sarnafil roofing components. They meet a wide variety of fire resistance, acoustic and design requirements.

Fasteners



When mechanically attaching single ply membranes to a structure, the interface performance of the structure plus the membrane, fastener and pressure plate performance, are key factors in determining the optimal performance of the finished roofing system. To ensure the correct fasteners are used in every Sarnafil roofing system, we supply a range of Sarnafil fasteners including thermally broken tube fasteners, pressure plates and fasteners, manufactured to our specification by SFS Intec.

Liquid Detailing



Sika Sarnafil also offers a Sarnafil Liquid Detailing System. This versatile and easily applied liquid system is perfect for problematic detailing when using Sarnafil G/S membranes. The technology used in the Sarnafil Liquid Detailing System has proven technology and its moisture triggered technology means that the system becomes rapidly waterproof after application.

Sarnafil Plus can offer a 15 year guarantee on this detailing system.

CASE STUDIES



BRITISH GAS CALL CENTRE, LEICESTER

SYSTEM: ADHERED

PRODUCT: SARNAFIL G410-18ELF

SIZE: 8,000 M²

CASE STUDIES



NORWICH CASTLE, NORFOLK

SYSTEM: ADHERED

PRODUCT: SARNAFIL G410-18ELF

SIZE: 1,500 M²

CASE STUDIES



CHURCHWOOD COMMUNITY PRIMARY SCHOOL, ST LEONARDS-ON-SEA

SYSTEM: ADHERED

PRODUCT: SARNAFIL G410-15EL

SIZE: 1,500M²

CASE STUDIES



SWIMMING POOL ROOF, MID-SUFFOLK LEISURE CENTRE, STOWMARKET

SYSTEM: ADHERED

PRODUCT: SARNAFIL G410-15EL

SIZE: 2,000M²