

# SIKA ROOFING GUARANTEE DOCUMENTS



**WE  
CARE**



**Currie Brown - Exeter**

PROJECT: St Mary's Airport - Pitch Roof Upgrade  
PROJECT REF: PW-0289158  
DATE: 28 January 2022

**BUILDING TRUST**



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# 1 GUARANTEE - NEW PITCHED ROOF

## 1.1 GUARANTEE OVERVIEW

**Proposed Guarantee & Installation Certificate 20 Years** - Sarnafil membranes are certified by the British Board of Agrément to have a life expectancy .

\*See BBA certificate for details

The Sarnafil Product Guarantee term is determined by the membrane thickness, for a 20 year guarantee for Sarnafil product, with the exception of Sarnaplast which is a 10 year maintenance item, a 1.8mm thick exposed membrane and SFS intec stainless steel fasteners for fastening the Sarnafil membrane and the insulation (when relevant) should be specified. Ballasted/green roofs require a minimum 1.8mm thick membrane and the appropriate Sarnafil protection/drainage layer. The Guarantee for any details waterproofed using Sarnafil Liquid Detailing is limited to 15 years only. All Sarnafil products directly supplied by Sika Limited are backed by public & product liability insurance (cover details available by request).

The Sarnafil Product Guarantee is for the benefit of the Customer and cover includes all Sarnafil products supplied by Sika Limited. including membrane, vapour control layers, filter and separation fleeces, fasteners, adhesive, outlets, etc. It is possible for the specifier to further enhance the cover of the Sarnafil Product Guarantee by specifying any combination of Sarnafil approved products manufactured by Sarnafil Branded Product Partners for thermal insulation (Sikatherm®), rooflights (SarnaLite) and fall arrest/fall restraint systems (Sarnafil Constant Force post, Sarnafil Green Roof Constant Force post, Sarnafil VersiRail freestanding guardrail) etc. Specifying these additional products provides a single point Sarnafil Extended Products Guarantee for all Sarnafil products and any Sarnafil Branded Product Partner approved products(s) actually used on the project. Sika Limited provides the client the additional comfort of direct loss cover for the approved products, which is not commonly available, from the Sarnafil Branded Product Partners. The Sarnafil Extended Products Guarantee will state which Sarnafil Branded Products have been used. Any product(s) not supplied and invoiced for Sarnafil or Sarnafil Branded Product Partners will not be covered by the Sarnafil Guarantee.

The 20 year Sarnafil Product Guarantee is supported by workmanship assurances provided by the Certified Contractor for the period of the Sarnafil Guarantee and whilst the contractor is trading. During the course of, and at the completion of the works, the Sika Roofing Applications Department will inspect the works. On completion of the works the Sika Roofing Applications Department will carry out an inspection and subject to any and all required remedial work being completed satisfactorily, will issue the Sarnafil Plus Product Guarantee & Installation Certificate, this will be covered by Sika Limited or Professional Indemnity Insurance. By issuing this, Sika Limited is responsible for defects within the installed system arising from an error or omission within the inspections completed by the Sika Roofing Applications Department.

The extension of the Sarnafil guarantee to 20 years increases the liability of Sika Limited, therefore the following additional condition is added to our standard guarantee terms.

To maintain the guarantee for such a long period good roof husbandry must be maintained. The roof

must therefore be inspected every 5 years and minor maintenance works undertaken, including the unblocking of roof outlets and the repair of any mastic seals. The inspection should be carried out by the Sika Roofing Applications Department, with the Client and where possible, Sarnafil Plus Contractor representation, in order to conform with the Sika Limited Health and Safety Policy. Power and access are to be provided by the Client.

Sarnafil Product and Extended Products Guarantees are only issued after a final inspection of the works by the Sika Roofing Applications Department (the number of site visits is dictated by the size and complexity of the project) and Sika Limited also requires payment in full of all the project invoices. The final inspection is requested by the Certified Contractor on practical completion of the roofing contract. Additionally for ballasted/green roof projects an inspection must be requested and then carried out by the Sika Roofing Application Department prior to the covering of the Sarnafil membrane.

The Sarnafil Guarantee can be assigned by the holder, provided that Sika Limited is notified in writing, subject to conditions.

Sample copies of the various guarantee types are available on request.

**NB: The Specifier or Client should always request the Sarnafil Plus Product Guarantee & Installation Certificate from the Certified Contractor and where a ballasted or green roof is specified they should ensure the Sika Roofing Applications Department is given the opportunity to inspect the roof membrane before it is covered.**

## 1.2 MAINTENANCE

**Maintenance of Sarnafil Roofing Systems** - Sarnafil membranes provide maintenance free roofs which are unaffected by standing water, accumulations of dirt or normal airborne concentrations of chemicals. The only maintenance required is the usual good husbandry of cleaning rainwater outlets and the roof membrane to enable inspection for evidence of physical damage from outside sources. It is strongly recommended that there is an annual inspection of the roof, plus in late Autumn if the roof is near trees, an additional clear up of leaves and cleaning of the roof, as necessary. It is a guarantee requirement that the roof is inspected for damage after adverse weather that may reasonably have been suspected to have caused building damage. It is also advisable to inspect after work is carried out on the roof by other trades.

**Maintenance of Sarnafil Extended Products** - The specific published maintenance requirements of each Sarnafil Branded Product must be followed for continuity of that product's guarantee within the system. The Building Owner must ensure that the Sarnafil Constant Force post fall arrest system or the Sarnafil VersiRail freestanding guardrail systems (where applicable) are correctly maintained and inspected annually by an independent assessor and must not be used without such annual certification.

**Product Information** - The Safety Data Sheets (SDS) for Sarnafil products are according to Regulation EC No 1907/2006 (REACH) and are available upon request.

**Cleaning** - If required, for instance for adequate inspection, the membrane may be washed using a domestic detergent solution applied with soft brooms and rinsed well using fresh water. No other treatment is necessary.

Where a ballasted roof has been installed the ballast may accumulate dirt and algae growth. As commercial cleaners or fungicides may contain chemicals detrimental to Sarnafil products, their make-up should be carefully checked before use. If in any doubt consult the Sika Roofing Technical Services Department (Tel: 01707 358500).

**Chemical Spillages** - On roofs where plant is installed chemical spillage is always a possibility. In the event of such an accident the area should be well washed down with a domestic detergent solution and flushed with fresh water until all traces of the chemical have been removed from the membrane surface. If in any doubt contact the Sika Roofing Technical Services Department.

**Mastic Joints** - Sarnaplast silicone mastic sealing to upstands or other details may need replacing as the joints fatigue or weather, typically after 10 years. Such work must be undertaken by a Verified/Certified Contractor - Single Ply Membranes, removal of all of the old mastic and the correct priming of the surfaces to receive the new Sarnaplast is essential.

**Sarnafil Liquid Detailing System** - Additional top coat of the Sarnafil Liquid Applied Detailing System can be installed to prolong the life. Such work must be undertaken by a suitably trained Verified/Certified Contractor - Single Ply Membranes and correct preparation of the surfaces to receive the coating, is essential.

**Physical Damage** - In common with any other roof finish, Sarnafil membranes are liable to physical damage if abused. On Sarnafil membranes however, this damage can be easily located and permanently repaired by a Verified/Certified Contractor - Single Ply Membranes. An up-to-date list of such Sarnafil

contractors can be obtained from Sika Limited (we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

Obviously it is not always possible to arrange an immediate repair by an outside agency. Under normal conditions the following first aid action will provide temporary protection until permanent repairs can be effected.

- Clean off the area surrounding the damage and dry well.
- Apply self-adhesive tape (e.g. Sarnafil foil tape) over the damaged area.
- The minimum acceptable size of Sarnafil repair should be 300mm x 300mm membrane with rounded corners.

**NB: Under no circumstances should repairs be attempted using bitumen based products.**

## 1.3 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. It covers the installation of Sarnafil materials and the preparation work necessary to provide a suitable substrate. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sarnafil products. A detailed method of work statement and programme of works should be agreed with the Verified/Certified Contractor - Single Ply Membranes before the commencement of the works.

The requirements of all relevant British Standards, Industry Codes of Practice and current Sarnafil guidelines should be complied with at all times. It is wholly the responsibility of the specifier or designer to ensure that the building and suggested Sarnafil specification complies with the relevant National Building Regulations. A bibliography is available upon request.

All materials shall be applied strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines. The successful Roofing Contractor shall afford Sika Limited every facility to enable them to carry out periodic site visits. This service does not absolve the contractor of his responsibility to carry out all work strictly in accordance with the specification.

**Copyright** - All Intellectual Property in the drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

**CDM Regulations** - The Construction (Design and Management) Regulations (CDM) are about the management of health and safety and apply to everyone associated with construction projects including the client. Regulations 4 and 5 state that it is the client's duty to make suitable arrangements for managing a project and maintaining and reviewing them for its duration so that it is carried out in a way that manages the health and safety risks involved. For projects involving more than one contractor, these regulations require the client to appoint a Principal Designer and Principal Contractor and to make sure that they carry out their duties. It is also the client's responsibility to engage a competent team that can include Contractors, Designers and Sub-Contractors and to provide all duty holders the appropriate information at the appropriate time. For further information on the requirements of the CDM Regulations visit <http://www.hse.gov.uk/pubns/books/l153.htm> for free guidance.

All construction projects will have to comply with the CDM Regulations, however Regulation 6 states that the HSE or other relevant enforcing authority, do not need to be notified about all of them.

Notifiable projects are projects that;

- last longer than 30 working days and have more than 20 workers working simultaneously at any point in the project; or
- exceed 500 person days.
- The easiest way to notify any project to the HSE or other relevant enforcing authority is to use the online notification form F10 on the HSE's website. Further information on how to notify construction work can be found at [www.hse.gov.uk/construction/cdm/faq/notification.htm](http://www.hse.gov.uk/construction/cdm/faq/notification.htm).

Clients, Designers and Contractors still have responsibilities for those projects that the HSE does not require notification on.

Sika Limited does not fulfil the role of the Principal Designer and therefore preparation for the proposed specification and subsequent works should only commence when all parties involved with the design and execution of the works are satisfied the appropriate CDM regulations have been fulfilled.

**Winter Working** - The application of some products within this specification, e.g. adhesives, primers, sealants and cleaners may be limited to temperatures above +5°C and therefore installation may be affected during colder months. Please observe information provided in the Sarnafil Product Data Sheets, which can be found at [www.sarnafil.co.uk](http://www.sarnafil.co.uk).

Lower temperatures may also affect any self-adhesive products specified and the minimum application temperatures quoted in the Product Data Sheets should be adhered to.

Where site conditions are unsuitable, appropriate measure should be taken and alternative products / changes to the specification may be necessary.

**Part L (Refurbishment)** - On the 6th April 2014 the Building Regulation Part L1 and L2 (England) were revised to help improve the energy efficiency of both new build and refurbishment projects. The 2013 edition generally requires 9% CO2 savings over the 2010 regulations for non-dwellings and 6% CO2 savings for dwellings.

Whether overlaying the existing waterproofing or stripping back to the underlying structure Part L requires a minimum U-value of 0.18W/m<sup>2</sup>K\* to be achieved, provided that the area to be refurbished is greater than 50% of the surface of the individual thermal element (i.e. roof, wall, floor), or 25% of the building envelope.

\* Although there are some exemptions, the relevant Building Control Body (BCB) is ultimately required to make a judgement on what will actually be required. Building Control must always be notified, as the potential financial consequences for non-compliance could be significant.

For Wales the new Building Regulations Part L1 and L2 came into force on 31st July 2014.

For Scotland, guidance to the building standards advises that the roof thermal insulation be improved wherever possible to the current requirements (Section 6 (Energy) of the Scottish Building Standards Agency Technical Handbooks), but always in consultation with building control.

The above is intended as guidance only, to ensure compliance with the relevant building regulations / standards. It is the responsibility of the person intending to carry out the works to notify the BCB and ensure compliance with any regulatory requirements.

Roofing refurbishment works is legally notifiable to LABC unless the installing contractor is registered under a self-assessment programme such as the Competent Roofer scheme. Contact NFRC for details.

**Application Support** - On most projects, once work has commenced on site, Sika's Applications Department will conduct an interim inspection of the work during the project and a final inspection prior to authorising the release of the Sika Limited guarantee.

Upon completion of the roofing system, the Field Technician will carry out a 34-point Final Inspection, ensuring that the work has been carried out in accordance with the specification and that it meets the



necessary standards for issue of the guarantee. With such an important role for the satisfactory completion of the project, experience is crucial, which is why all Roofing Field Technicians have a minimum 5 years installation experience.

Together, the 11 strong team of Field Technicians for Sika's Roofing Applications Department, are responsible for training Verified/Certified Contractors, inspecting on-going work and carrying out Final Inspections.

**Manufacturing Membranes** - Sarnafil G/S membranes are manufactured by a state-of-the-art extrusion coating process ensuring each membrane type can be specifically engineered to meet particular requirements. They are dimensionally stable, vapour permeable and UV resistant. They are unaffected by common airborne pollutants and are available in different grades of thickness and colour.

**BBA Certification** - Sarnafil G/S membranes have again been recognised by the British Board of Agrément for their weathering longevity. Sarnafil G/S membranes have been given by the BBA, in their opinion, a life expectancy of 'in excess of 40 years' for exposed applications, with periodic maintenance as stated below.

"A planned maintenance cycle, and inspections by the Sika Roofing Application Department under the Sarnafil Quality Management System at minimum intervals of every 5 years, should be introduced if an extended service life is required. Sarnafil can advise methods of extending the service life. This could include the use of thicker membranes, specific maintenance requirements, for example maintenance coating or localised replacement or repair."

Should the maintenance cycle not be followed Sarnafil G/S membranes have been given by the BBA, in their opinion, a life expectancy of 'in excess of 35 years'.

**Falls & Ponding on roofs** - Sika Limited strongly recommends that in accordance with BS 6229:2018 Flat Roofs with Continuously Supported Flexible Waterproof Coverings –Code of Practice and the SPRA Code of Practice, "a minimum 1:80 finished fall is recommended to both the general area of the roof and to any formed internal gutters. All flat roof surfaces (including gutter beds) should be designed with a fall of 1:40 to ensure finished drainage falls of 1:80 are achieved. This should take account of construction tolerances, permitted deviations and deflection under load, and, unless justified by more detailed structural analysis, to account for deflections/settlement".

The certificate issued by the BBA is a third party assessment of material and system performance with statements regarding Building Regulation compliance, physical characteristics and durability.

Achieving a fall on a flat roof (as referred to in BS 6229:2018, SPRA Design Guidance and the BBA certificate) is good roofing practice and is intended to avoid large areas of ponding rainwater and the situation where the weight of excessive rainwater build-up on a roof could possibly compromise its structural integrity.

However it is quite common, even on flat roofs that have been designed and installed correctly, to have areas where small amounts of standing rainwater accumulates, such as in gutters, behind upstands, rooflights and around rainwater outlets. Small areas of standing water will not affect the long term waterproofing integrity of the Sarnafil membrane nor the terms of the Sarnafil guarantee.

When a roof is installed at less than the recommended fall, careful consideration should be given to the following;

- Contradiction of all good practice guidance, including BS 6229, SPRA, NFRC and NHBC advice.
- Loading on the structure (deck deflection) – the additional weight of ponding water must be accommodated.
- Aesthetics – risk of standing water, algae, moss, mosquitoes, etc.
- Health & Safety – odour/hygiene issues, dangerous conditions may occur as the water freezes in winter or becomes slippery after rainfall.
- Increased risk of leakage if the roof waterproofing gets damaged.

**Upstand heights** - Upstands should conform to the recommendations of BS 6229:2018 Flat Roofs with Continuously Supported Flexible Waterproof Coverings – Code of Practice and the SPRA Code of Practice concerning the minimum height of upstands, which states the following:

"At all abutments the waterproof layer should be turned up to a level not less than 150 mm above the adjacent finished roof system".

In the case of ballasted or protected roof systems, the waterproofing should be terminated 150mm above the finished roof surface i.e. paving slabs, stone ballast, green roofs etc. For exposed roofs with retained or attenuated water systems, the 150mm requirement should be above the maximum height of the retained or attenuated water.

Where level access is required on balcony or terrace roofs, "the height of the upturn may be reduced to not less than 75 mm" at the threshold detail only, provided the conditions set out within BS 6229:2018 (Figures 5, 6 and 7), SPRA Code of Practice and NHBC Technical Standards are followed.

Please note water ingress over any detail which does not comply with the above recommendations will not be covered by the Sarnafil guarantee.

**Protection of the roof during construction** - To prevent damage to the Sarnafil membrane ensure that finished areas of work are not used for the storage of materials, as building platforms or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

To protect the Sarnafil membrane care must be taken to avoid spillages of bitumen or other contaminating materials over the membrane. Finished areas of work must be kept clean and free from any contamination, which may be generated by roofing or other site operations.

**Keep plywood or OSB dry** - When adhering Sarnafil membranes directly to certificated grade plywood to BS EN 636 (minimum Service Class 2 "plywood for use in humid conditions" should be used, however higher Service Class plywood may be required, depending on climatic conditions, and should therefore be defined by the specifier) or Agrément Certificated Orientated Strand Board OSB grade 3 to BS EN 300-3, the board should be kept dry and the membrane should be applied as soon as the board is screw fastened into position.

The level and smoothness of the board joints will directly affect the appearance of the Sarnafil.

**Insulation boards over metal decks** - All insulation boards laid on profiled metal decks must be of sufficient strength and thickness to bridge the deck profile including perimeter edge of decking conditions. It is the responsibility of the Specifier to confirm this with the insulation manufacturer.

**Insulation Insurance** - Sika Limited strongly recommends that the specifier and/or the client should confirm the suitability of the thermal insulation suggested in this specification with the insurer(s) of the building and its contents prior to adopting this proposal. Sika Limited will assume that the specification is deemed suitable if it is then used as the basis for tendering purposes to procure the works.

**Insulation storage** - Insulation boards should be stored undercover and on a dry platform. The insulation shrink wrapping is not adequate for weather protection.

**Sarnametal** - Care should be exercised when considering Sarnametal for termination details in marine and other adverse environments, which may be detrimental to the zinc coated underside of the metal. Should this be the case ensure any cut edges or the underside is sealed or protected to avoid exposure. Alternatively consideration should be given to the use of a counterflashing or capping detail manufactured from a suitable material.

**Walkway protection (PVC)** - At roof access points and where regular foot traffic is envisaged across the finished roof, recycled SarnaTred G/S walkway tiles should be installed, with permanent additional insulation protection for areas that may be heavily trafficked during the service life of the roof, and/or with temporary protection during the construction period.

**Patch repairs** - On this project, if the appearance of the membrane is visually important, use of numerous smaller patches should be avoided and the following aesthetic precaution should be adopted. If the Sarnafil field membrane should be damaged and it is necessary to be repaired, then a full width of Sarnafil membrane should be used.

**Trial area** - For visually important roofs or specific details the specifier is advised to request a mock-up or trial area to establish a benchmark for the desired and acceptable quality.

**Fire Performance** - Sika Sarnafil roofing systems are tested to BS EN 13501-5 BROOF t4 and can therefore meet current Building Regulations for fire performance. Although it is not feasible to test every permutation, Sika Limited have conducted extensive testing to cover the membrane type & thickness, insulation type & thickness and various substrate types covering any roof pitch. All test reports are available on request.

We recommend particular attention should be given to vertical wall areas and the presence of internal compartment walls where Sarnafil may be considered. Further guidance can be found in the National Building Regulations, which are available online;

- Fire safety: Approved Document B
- Building Standards - Scotland

Whilst we provide information on the performance of our products in accordance with the BBA certificate and above-mentioned testing standards, the suitability of this proposed specification is based on information made available to Sika Limited at the time of writing. The specifier or designer should also carry out their due diligence and submit for Building Control approval to ensure the building complies fully with all relevant regulations and standards.

**Safety Data Sheets** - Sika Limited complies with current Control of Substances Hazardous to Health (COSHH) Regulations. For certain products, Safety Data Sheets (SDS) may be required; these are available upon request.

**Workmanship** - All work is to be carried out in accordance with the Single Ply Roofing Association Design Guide, in strict accordance with the recommendations for Sarnafil systems and where relevant, BS 8217:2005 Code of Practice for Built-up Felt Roofing and BS 6229:2018 Code of Practice for Flat Roofs with Continuously Supported Coverings.

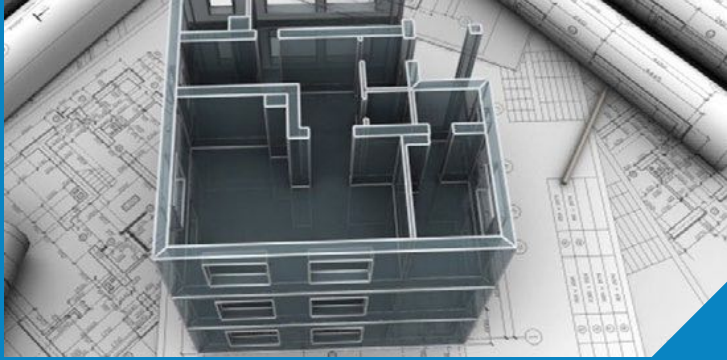
Sarnafil roofing systems may only be installed by a Verified/Certified Contractor - Single Ply Membranes authorised by Sika Limited. All hot air welding of the membrane is to be undertaken by operatives with a valid Sarnafil LINK Card or Experienced Workers Card.

Roofing refurbishment works is legally notifiable to LABC unless the installing contractor is registered under a self-assessment programme such as the Competent Roofer scheme. Contact NFRC for details.

**Hot Works** - The specified system is designed utilising cold applied Sika Sarnafil products and intended to avoid the use of hot works. However, should the installing contractor require use of any heat or hot works during installation for preparation or drying, care should be taken and all hot works must be carried out with the clients permission and in strict accordance with Health & Safety Guidelines with particular reference to Safe2Torch.

A comprehensive guidance document can be found on the NFRC website ([www.nfrc.co.uk/safe2torch](http://www.nfrc.co.uk/safe2torch)).

# SIKA ROOFING GUARANTEE DOCUMENTS



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**Currie Brown - Exeter**

PROJECT: St Mary's Airport - Pitch Roof Upgrade  
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# 1 GUARANTEE - REPAIRS

## 1.1 GUARANTEE OVERVIEW

**Proposed Guarantee & Installation Certificate 10 Years** - Sarnafil membranes are certified by the British Board of Agrément to have a life expectancy .

\*See BBA certificate for details

The standard 10 year Product Guarantee for exposed roof membranes requires a 1.2mm thick membrane, this period can be extended if a thicker membrane is specified. Ballasted/green roofs require a minimum 1.5mm thick membrane and the appropriate Sarnafil protection/drainage layer. The Guarantee for any details waterproofed using Sarnafil Liquid Detailing is limited to 10 years only. All Sarnafil products directly supplied by Sika Limited are backed by public & product liability insurance (cover details available by request).

The Sarnafil Product Guarantee is for the benefit of the Customer and cover includes all Sarnafil products supplied by Sika Limited including membrane, vapour control layers, filter and separation fleeces, fasteners, adhesive, outlets, etc. It is possible for the specifier to further enhance the cover of the Sarnafil Product Guarantee by specifying any combination of Sarnafil approved products manufactured by Sarnafil Branded Product Partners for thermal insulation (Sikatherm®), rooflights (SarnaLite) and fall arrest/fall restraint systems (Sarnafil Constant Force post, Sarnafil Green Roof Constant Force post, Sarnafil VersiRail freestanding guardrail) etc. Specifying these additional products provides a single point Sarnafil Extended Products Guarantee for all Sarnafil products and any Sarnafil Branded Product Partner approved products(s) actually used on the project. Sika Limited provides the client the additional comfort of direct loss cover for the approved products, which is not commonly available, from the Sarnafil Branded Product Partners. The Sarnafil Extended Products Guarantee will state which Sarnafil Branded Products have been used. Any product(s) not supplied and invoiced for Sarnafil or Sarnafil Branded Product Partners will not be covered by the Sarnafil Guarantee.

The 10 year Sarnafil Product Guarantee is supported by workmanship assurances provided by the Certified Contractor for the period of the Sarnafil Guarantee and whilst the contractor is trading. During the course of, and at the completion of the works, the Sika Roofing Applications Department will inspect the works. On completion of the works the Sika Roofing Applications Department will carry out an inspection and subject to any and all required remedial work being completed satisfactorily, will issue the Sarnafil Plus Product Guarantee & Installation Certificate, this will be covered by Sika Limited or Professional Indemnity Insurance. By issuing this, Sika Limited is responsible for defects within the installed system arising from an error or omission within the inspections completed by the Sika Roofing Applications Department.

Sarnafil Product and Extended Products Guarantees are only issued after a final inspection of the works by the Sika Roofing Applications Department (the number of site visits is dictated by the size and complexity of the project) and Sika Limited also requires payment in full of all the project invoices. The final inspection is requested by the Certified Contractor on practical completion of the roofing contract. Additionally for ballasted/green roof projects an inspection must be requested and then carried out by the Sika Roofing Applications Department prior to the covering of the Sarnafil membrane.



The Sarnafil Guarantee can be assigned by the holder, provided that Sika Limited is notified in writing, subject to conditions.

Sample copies of the various guarantee types are available on request.

**NB: The Specifier or Client should always request the Sarnafil Plus Product Guarantee & Installation Certificate from the Certified Contractor and where a ballasted or green roof is specified they should ensure the Sika Roofing Applications Department is given the opportunity to inspect the roof membrane before it is covered.**

## 1.2 MAINTENANCE

**Maintenance of Sarnafil Roofing Systems** - Sarnafil membranes provide maintenance free roofs which are unaffected by standing water, accumulations of dirt or normal airborne concentrations of chemicals. The only maintenance required is the usual good husbandry of cleaning rainwater outlets and the roof membrane to enable inspection for evidence of physical damage from outside sources. It is strongly recommended that there is an annual inspection of the roof, plus in late Autumn if the roof is near trees, an additional clear up of leaves and cleaning of the roof, as necessary. It is a guarantee requirement that the roof is inspected for damage after adverse weather that may reasonably have been suspected to have caused building damage. It is also advisable to inspect after work is carried out on the roof by other trades.

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**Product Information** - The Safety Data Sheets (SDS) for Sarnafil products are according to Regulation EC No 1907/2006 (REACH) and are available upon request.

**Cleaning** - If required, for instance for adequate inspection, the membrane may be washed using a domestic detergent solution applied with soft brooms and rinsed well using fresh water. No other treatment is necessary.

Where a ballasted roof has been installed the ballast may accumulate dirt and algae growth. As commercial cleaners or fungicides may contain chemicals detrimental to Sarnafil products, their make-up should be carefully checked before use. If in any doubt consult the Sika Roofing Technical Services Department (Tel: 01707 358500).

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**Mastic Joints** - Sarnaplast silicone mastic sealing to upstands or other details may need replacing as the joints fatigue or weather, typically after 10 years. Such work must be undertaken by a Verified/Certified Contractor - Single Ply Membranes, removal of all of the old mastic and the correct priming of the



surfaces to receive the new Sarnaplast is essential.

**Sarnafil Liquid Detailing System** - Additional top coat of the Sarnafil Liquid Applied Detailing System can be installed to prolong the life. Such work must be undertaken by a suitably trained Verified/Certified Contractor - Single Ply Membranes and correct preparation of the surfaces to receive the coating, is essential.

**Physical Damage** - In common with any other roof finish, Sarnafil membranes are liable to physical damage if abused. On Sarnafil membranes however, this damage can be easily located and permanently repaired by a Verified/Certified Contractor - Single Ply Membranes. An up-to-date list of such Sarnafil contractors can be obtained from Sika Limited (we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

Obviously it is not always possible to arrange an immediate repair by an outside agency. Under normal conditions the following first aid action will provide temporary protection until permanent repairs can be effected.

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**NB: Under no circumstances should repairs be attempted using bitumen based products.**

## 1.3 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. It covers the installation of Sarnafil materials and the preparation work necessary to provide a suitable substrate. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sarnafil products. A detailed method of work statement and programme of works should be agreed with the Verified/Certified Contractor - Single Ply Membranes before the commencement of the works.

The requirements of all relevant British Standards, Industry Codes of Practice and current Sarnafil guidelines should be complied with at all times. It is wholly the responsibility of the specifier or designer to ensure that the building and suggested Sarnafil specification complies with the relevant National Building Regulations. A bibliography is available upon request.

All materials shall be applied strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines. The successful Roofing Contractor shall afford Sika Limited every facility to enable them to carry out periodic site visits. This service does not absolve the contractor of his responsibility to carry out all work strictly in accordance with the specification.

**Copyright** - All Intellectual Property in the drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

**CDM Regulations** - The Construction (Design and Management) Regulations (CDM) are about the

management of health and safety and apply to everyone associated with construction projects including the client. Regulations 4 and 5 state that it is the client's duty to make suitable arrangements for managing a project and maintaining and reviewing them for its duration so that it is carried out in a way that manages the health and safety risks involved. For projects involving more than one contractor, these regulations require the client to appoint a Principal Designer and Principal Contractor and to make sure that they carry out their duties. It is also the client's responsibility to engage a competent team that can include Contractors, Designers and Sub-Contractors and to provide all duty holders the appropriate information at the appropriate time. For further information on the requirements of the CDM Regulations visit <http://www.hse.gov.uk/pubns/books/l153.htm> for free guidance.

All construction projects will have to comply with the CDM Regulations, however Regulation 6 states that the HSE or other relevant enforcing authority, do not need to be notified about all of them.

Notifiable projects are projects that;

- last longer than 30 working days and have more than 20 workers working simultaneously at any point in the project; or
- exceed 500 person days.
- The easiest way to notify any project to the HSE or other relevant enforcing authority is to use the online notification form F10 on the HSE's website. Further information on how to notify construction work can be found at [www.hse.gov.uk/construction/cdm/faq/notification.htm](http://www.hse.gov.uk/construction/cdm/faq/notification.htm).

Clients, Designers and Contractors still have responsibilities for those projects that the HSE does not require notification on.

Sika Limited does not fulfil the role of the Principal Designer and therefore preparation for the proposed specification and subsequent works should only commence when all parties involved with the design and execution of the works are satisfied the appropriate CDM regulations have been fulfilled.

**Winter Working** - The application of some products within this specification, e.g. adhesives, primers, sealants and cleaners may be limited to temperatures above +5°C and therefore installation may be affected during colder months. Please observe information provided in the Sarnafil Product Data Sheets, which can be found at [www.sarnafil.co.uk](http://www.sarnafil.co.uk).

Lower temperatures may also affect any self-adhesive products specified and the minimum application temperatures quoted in the Product Data Sheets should be adhered to.

Where site conditions are unsuitable, appropriate measure should be taken and alternative products / changes to the specification may be necessary.

**Part L (Refurbishment)** - On the 6th April 2014 the Building Regulation Part L1 and L2 (England) were revised to help improve the energy efficiency of both new build and refurbishment projects. The 2013 edition generally requires 9% CO<sub>2</sub> savings over the 2010 regulations for non-dwellings and 6% CO<sub>2</sub> savings for dwellings.

Whether overlaying the existing waterproofing or stripping back to the underlying structure Part L requires a minimum U-value of 0.18W/m<sup>2</sup>K\* to be achieved, provided that the area to be refurbished is greater than 50% of the surface of the individual thermal element (i.e. roof, wall, floor), or 25% of the building envelope.

\* Although there are some exemptions, the relevant Building Control Body (BCB) is ultimately required to make a judgement on what will actually be required. Building Control must always be notified, as the potential financial consequences for non-compliance could be significant.

For Wales the new Building Regulations Part L1 and L2 came into force on 31st July 2014.

For Scotland, guidance to the building standards advises that the roof thermal insulation be improved wherever possible to the current requirements (Section 6 (Energy) of the Scottish Building Standards Agency Technical Handbooks), but always in consultation with building control.

The above is intended as guidance only, to ensure compliance with the relevant building regulations / standards. It is the responsibility of the person intending to carry out the works to notify the BCB and ensure compliance with any regulatory requirements.

Roofing refurbishment works is legally notifiable to LABC unless the installing contractor is registered under a self-assessment programme such as the CompetentRoofer scheme. Contact NFRC for details.

**Application Support** - On most projects, once work has commenced on site, Sika's Applications Department will conduct an interim inspection of the work during the project and a final inspection prior to authorising the release of the Sika Limited guarantee.

Upon completion of the roofing system, the Field Technician will carry out a 34-point Final Inspection, ensuring that the work has been carried out in accordance with the specification and that it meets the necessary standards for issue of the guarantee. With such an important role for the satisfactory completion of the project, experience is crucial, which is why all Roofing Field Technicians have a minimum 5 years installation experience.

Together, the 11 strong team of Field Technicians for Sika's Roofing Applications Department, are responsible for training Verified/Certified Contractors, inspecting on-going work and carrying out Final Inspections.

**Manufacturing Membranes** - Sarnafil G/S membranes are manufactured by a state-of-the-art extrusion coating process ensuring each membrane type can be specifically engineered to meet particular requirements. They are dimensionally stable, vapour permeable and UV resistant. They are unaffected by common airborne pollutants and are available in different grades of thickness and colour.

**BBA Certification** - Sarnafil G/S membranes have again been recognised by the British Board of Agrément for their weathering longevity. Sarnafil G/S membranes have been given by the BBA, in their opinion, a life expectancy of 'in excess of 40 years' for exposed applications, with periodic maintenance as stated below.

"A planned maintenance cycle, and inspections by the Sika Roofing Application Department under the Sarnafil Quality Management System at minimum intervals of every 5 years, should be introduced if an extended service life is required. Sarnafil can advise methods of extending the service life. This could include the use of thicker membranes, specific maintenance requirements, for example maintenance coating or localised replacement or repair."

Should the maintenance cycle not be followed Sarnafil G/S membranes have been given by the BBA, in their opinion, a life expectancy of 'in excess of 35 years'.

**Falls & Ponding on roofs** - Sika Limited strongly recommends that in accordance with BS 6229:2018 Flat Roofs with Continuously Supported Flexible Waterproof Coverings –Code of Practice and the SPRA Code of Practice, “a minimum 1:80 finished fall is recommended to both the general area of the roof and to any formed internal gutters. All flat roof surfaces (including gutter beds) should be designed with a fall of 1:40 to ensure finished drainage falls of 1:80 are achieved. This should take account of construction tolerances, permitted deviations and deflection under load, and, unless justified by more detailed structural analysis, to account for deflections/settlement”.

The certificate issued by the BBA is a third party assessment of material and system performance with statements regarding Building Regulation compliance, physical characteristics and durability.

Achieving a fall on a flat roof (as referred to in BS 6229:2018, SPRA Design Guidance and the BBA certificate) is good roofing practice and is intended to avoid large areas of ponding rainwater and the situation where the weight of excessive rainwater build-up on a roof could possibly compromise its structural integrity.

However it is quite common, even on flat roofs that have been designed and installed correctly, to have areas where small amounts of standing rainwater accumulates, such as in gutters, behind upstands, rooflights and around rainwater outlets. Small areas of standing water will not affect the long term waterproofing integrity of the Sarnafil membrane nor the terms of the Sarnafil guarantee.

When a roof is installed at less than the recommended fall, careful consideration should be given to the following;

- Contradiction of all good practice guidance, including BS 6229, SPRA, NFRC and NHBC advice.
- Loading on the structure (deck deflection) – the additional weight of ponding water must be accommodated.
- Aesthetics – risk of standing water, algae, moss, mosquitoes, etc.
- Health & Safety – odour/hygiene issues, dangerous conditions may occur as the water freezes in winter or becomes slippery after rainfall.
- Increased risk of leakage if the roof waterproofing gets damaged.

**Upstand heights** - Upstands should conform to the recommendations of BS 6229:2018 Flat Roofs with Continuously Supported Flexible Waterproof Coverings – Code of Practice and the SPRA Code of Practice concerning the minimum height of upstands, which states the following:

"At all abutments the waterproof layer should be turned up to a level not less than 150 mm above the adjacent finished roof system".

In the case of ballasted or protected roof systems, the waterproofing should be terminated 150mm above the finished roof surface i.e. paving slabs, stone ballast, green roofs etc. For exposed roofs with retained or attenuated water systems, the 150mm requirement should be above the maximum height of the retained or attenuated water.

Where level access is required on balcony or terrace roofs, "the height of the upturn may be reduced to not less than 75 mm" at the threshold detail only, provided the conditions set out within BS 6229:2018 (Figures 5, 6 and 7), SPRA Code of Practice and NHBC Technical Standards are followed.

Please note water ingress over any detail which does not comply with the above recommendations will not be covered by the Sarnafil guarantee.

**Protection of the roof during construction** - To prevent damage to the Sarnafil membrane ensure that finished areas of work are not used for the storage of materials, as building platforms or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

To protect the Sarnafil membrane care must be taken to avoid spillages of bitumen or other contaminating materials over the membrane. Finished areas of work must be kept clean and free from any contamination, which may be generated by roofing or other site operations.

**Keep plywood or OSB dry** - When adhering Sarnafil membranes directly to certificated grade plywood to BS EN 636 (minimum Service Class 2 “plywood for use in humid conditions” should be used, however higher Service Class plywood may be required, depending on climatic conditions, and should therefore be defined by the specifier) or Agrément Certificated Orientated Strand Board OSB grade 3 to BS EN 300-3, the board should be kept dry and the membrane should be applied as soon as the board is screw fastened into position.

The level and smoothness of the board joints will directly affect the appearance of the Sarnafil.

**Insulation boards over metal decks** - All insulation boards laid on profiled metal decks must be of sufficient strength and thickness to bridge the deck profile including perimeter edge of decking conditions. It is the responsibility of the Specifier to confirm this with the insulation manufacturer.

**Insulation Insurance** - Sika Limited strongly recommends that the specifier and/or the client should confirm the suitability of the thermal insulation suggested in this specification with the insurer(s) of the building and its contents prior to adopting this proposal. Sika Limited will assume that the specification is deemed suitable if it is then used as the basis for tendering purposes to procure the works.

**Insulation storage** - Insulation boards should be stored undercover and on a dry platform. The insulation shrink wrapping is not adequate for weather protection.

**Sarnametal** - Care should be exercised when considering Sarnametal for termination details in marine and other adverse environments, which may be detrimental to the zinc coated underside of the metal. Should this be the case ensure any cut edges or the underside is sealed or protected to avoid exposure. Alternatively consideration should be given to the use of a counterflashing or capping detail manufactured from a suitable material.

**Walkway protection (PVC)** - At roof access points and where regular foot traffic is envisaged across the finished roof, recycled SarnaTred G/S walkway tiles should be installed, with permanent additional insulation protection for areas that may be heavily trafficked during the service life of the roof, and/or with temporary protection during the construction period.

**Patch repairs** - On this project, if the appearance of the membrane is visually important, use of numerous smaller patches should be avoided and the following aesthetic precaution should be adopted. If the Sarnafil field membrane should be damaged and it is necessary to be repaired, then a full width of Sarnafil membrane should be used.

**Trial area** - For visually important roofs or specific details the specifier is advised to request a mock-up or trial area to establish a benchmark for the desired and acceptable quality.

**Fire Performance** – Sika Sarnafil roofing systems are tested to BS EN 13501-5 BROOF t4 and can therefore meet current Building Regulations for fire performance. Although it is not feasible to test every permutation, Sika Limited have conducted extensive testing to cover the membrane type & thickness, insulation type & thickness and various substrate types covering any roof pitch. All test reports are available on request.

We recommend particular attention should be given to vertical wall areas and the presence of internal compartment walls where Sarnafil may be considered. Further guidance can be found in the National Building Regulations, which are available online;

- Fire safety: Approved Document B
- Building Standards - Scotland

Whilst we provide information on the performance of our products in accordance with the BBA certificate and above-mentioned testing standards, the suitability of this proposed specification is based on information made available to Sika Limited at the time of writing. The specifier or designer should also carry out their due diligence and submit for Building Control approval to ensure the building complies fully with all relevant regulations and standards.

**Safety Data Sheets** - Sika Limited complies with current Control of Substances Hazardous to Health (COSHH) Regulations. For certain products, Safety Data Sheets (SDS) may be required; these are available upon request.

**Workmanship** - All work is to be carried out in accordance with the Single Ply Roofing Association Design Guide, in strict accordance with the recommendations for Sarnafil systems and where relevant, BS 8217:2005 Code of Practice for Built-up Felt Roofing and BS 6229:2018 Code of Practice for Flat Roofs with Continuously Supported Coverings.

Sarnafil roofing systems may only be installed by a Verified/Certified Contractor - Single Ply Membranes authorised by Sika Limited. All hot air welding of the membrane is to be undertaken by operatives with a valid Sarnafil LINK Card or Experienced Workers Card.

Roofing refurbishment works is legally notifiable to LABC unless the installing contractor is registered under a self-assessment programme such as the CompetentRoofer scheme. Contact NFRC for details.

**Hot Works** - The specified system is designed utilising cold applied Sika Sarnafil products and intended to avoid the use of hot works. However, should the installing contractor require use of any heat or hot works during installation for preparation or drying, care should be taken and all hot works must be carried out with the clients permission and in strict accordance with Health & Safety Guidelines with particular reference to Safe2Torch.

A comprehensive guidance document can be found on the NFRC website ([www.nfrc.co.uk/safe2torch](http://www.nfrc.co.uk/safe2torch)).