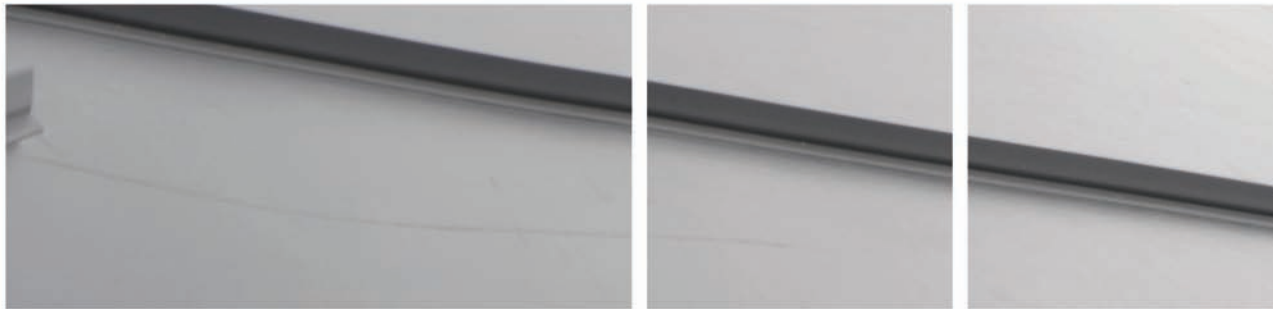


refurb



Roofing

Roof refurbishment services



Sarnafil®



Expert roof refurbishment from the leader in single ply roofing

Draw on our expertise to help make every step of your roof refurbishment project run smoothly – from initial survey to handover and guarantee issue.

Clear advantages

Many thousands of buildings, including hospitals, schools, universities, factories, offices and dwellings have benefited from the installation of lightweight Sarnafil roofs – often carried out with little or no disruption to building occupants.

Key Sarnafil benefits include:

- Installation is carried out without naked flames.
- A wide variety of system options is available, to ensure the best solution for each individual application.
- The high vapour permeability of Sarnafil G/S membranes allows overlaying of the existing waterproofing (subject to survey). This can significantly minimise disruption to the building and reduce cost without impacting on the life of the new Sarnafil roof.
- Peace of mind, resulting from BBA Certification*, industry leading quality procedures and guarantees.

Expert advice

The simplest decision is choosing which level of service will meet your refurbishment requirements.

A Technical Adviser will listen to your requirements and recommend the most suitable course of action, working with some of the industry's most experienced and respected suppliers and contractors to provide you with a comprehensive range of systems, services and guarantees. Your Technical Adviser will ensure that your requirements or those of your client are met in the most cost effective way.

Proven track record

The first Sarnafil roofs were installed more than 40 years ago, and many of these early installations are still providing reliable protection today.

Sarnafil is not only specified for refurbishment projects. Some of the UK's best known buildings feature Sarnafil roofs, including: the Bluewater shopping centre, Heathrow, Stansted and Gatwick Airports, St Pancras railway station, London's ExCeL, Glasgow's SECC, and the Stirling Award winning American Air Museum at Duxford.





Sarnafil detailing around complex roof features and building services at one of Britain's leading universities.

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A complete, trusted solution, offering:

- A registered contractor scheme, so that only trained installers complete your roof.
- A proven track record in the refurbishment industry, providing client confidence.
- Low whole life costs, providing best value for clients and reducing the roof's impact on operating costs.
- Responsibility for wind uplift calculations, ensuring that the calculation is not only carried out but that they are to the latest standards.
- Thermal surveys, pullout tests and core samples.
- A vapour permeable solution, opening up the option of an overlay without disturbing the existing roof (suitability subject to survey).
- A membrane with an independent BBA certified life expectancy in excess of 40* years, contributing to the positive environmental profile of the building and a low whole life cost.



Peace-of-mind comes as standard with Sarnafil roof refurbishment. All site work is carried out by Sarnafil trained contractors and is inspected by Sarnafil experts prior to guarantee issue.

* For full details of Sarnafil's BBA Certification, please visit www.sarnafil.co.uk



Factors affecting roof life

Maintaining a building is a complex business, and with the roof out of day-to-day sight and consideration, it is often only when water enters the building that it becomes a concern.

Factors affecting roof life

Most factors that affect the life of a traditional flat roofing system can be identified before potential problems become a reality. A structured inspection and maintenance regime can therefore extend the life of a roof. However, traditional flat roofing materials have a limited lifespan and replacement will become inevitable when defects or damage become evident.

With traditional flat roofing materials, the effects of long term exposure to UV radiation are all visible and recognisable; effects such as crazing, blisters, splits, slumping or water ingress through joints or details.

The quality of design and workmanship also play a crucial role in the life expectancy of a flat roof. Insufficient allowance for building movement can cause damage to roofing membranes which may lead to failure of the roof. Fixing mechanisms must be based on accurate wind uplift calculations and detailing around features must be carried out correctly to avoid water ingress.

When repair is impractical...

Repair patches applied to traditional flat roofing materials generally provide only very limited resistance to water ingress. Structural damage to the roof substrate can also result from poorly repaired or defective roofs.

As part of our service, Sarnafil can provide professional inspections and surveys to provide clients with the detailed information they need to plan and budget for roof refurbishment as it becomes necessary.

Other reason for refurbishment...

Change of building use, or the requirement to thermally upgrade the roof are further factors which may necessitate roof refurbishment.

It may also be possible to create a green roof or amenity space, or a solar installation. With Sarnafil roofing, the possibilities are endless...





Sarnafil roofing was used in the refurbishment of the National Gallery of Scotland in Edinburgh.



Wind damage resulting from poor design



Aged materials

Why do roofs fail?

Poor design

Incorrect, or a lack of, wind uplift calculations are typical examples of design errors which can result in the roof covering failing.

Aged materials

In the example shown, UV degradation has affected the roof covering. Repair patches will only provide limited resistance to water ingress.



Incorrect installation



Ponding caused by poor design and maintenance

Incorrect installation

Poor detailing around pipes and flashings can result in the roof covering failing.

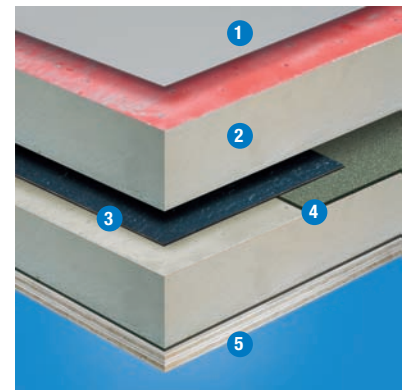
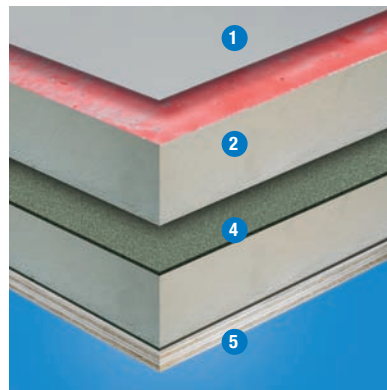
Poor design and maintenance

Failure to clear drainage outlets and gutters, can cause 'ponding', leading to more serious roof problems.



Sarnafil roof refurbishment options

Sarnafil single-ply roofing offers a variety of options for refurbishment and roof upgrades.



Key to diagrams:

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

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 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)
- 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.

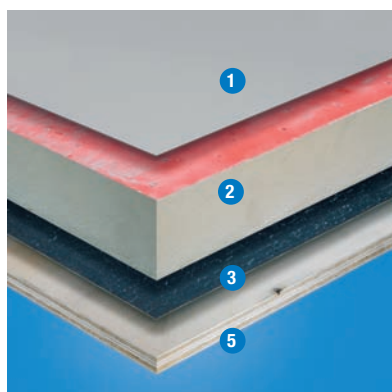
Examples of where a partial strip would be recommended are;

- 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





The Redwoods residential building in Roehampton, London, where a defective roof from the 1960's was replaced and upgraded to comply with Part L of the Building Regulations.



Complete Strip

If the roof has been leaking for some time or previous repairs have failed, a complete strip may be required to remove wet thermal insulation or deck.

Examples of where a complete strip would be recommended are;

- 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 roof refurbishment project, we can upgrade the functionality of the 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.



A range of packages to extend the life of your roof

With Sarnafil, you can choose between two clearly defined refurbishment packages to suit your project precisely. Each combines experienced personnel, market-leading products and stringent quality control.

A turnkey process, from initial inspection to guarantee issue

Whichever of the following refurbishment packages is selected, once the project is on site, a Field Technician will conduct an interim inspection of the work during the project.

On completion of the roofing system, the same Field Technician carries 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 guarantee.

With such an important role for the satisfactory completion of the project, experience is crucial. This is why all Field Technicians are ex-Sarnafil installers with a minimum of 5 years experience. Together they form the Applications Department, the team responsible for training registered contractors, checking ongoing work and inspecting projects for guarantee.

Option 1, our Standard Service refurbishment package

With this option, a Technical Adviser works with the client or his agent to develop a specific re-roofing specification for the project.

The type of system will be agreed together with the Sarnafil membrane type, thickness and colour. The guarantee requirements, Product or Extended Products, will be established and a project specific detailed specification will be written. This specification will include the wind uplift calculations, for which Sarnafil takes design responsibility.

A number of experienced, specialist, Sarnafil trained contractors suitable for the type of project will be proposed for competitive tender.





Refurbishment of the Rotunda roof at Norwich Castle was subject to strict guidelines applied to listed buildings. Lead grey Sarnafil membrane with batten profiles was used to replicate traditional lead.



Sarnafil refurbishment guarantees can provide coverage of ten, fifteen or twenty years, depending on the specification, and are signed by Sika, the Sarnafil Registered Contractor, the principal contractor (where applicable) and the client.



A range of packages to extend the life of your roof (continued)

Option 2, the Roof Management Comprehensive Package

The ultimate Sarnafil roof refurbishment offering, this option takes your roof refurbishment project from initial consultation, survey and specification through to installation, inspection and guarantee issue.

Roof Management consultancy service

With over twenty-five years experience in the refurbishment market, Sarnafil is able to provide a full range of services that can be tailored to individual requirements. The first stage of the Roof Management package is to undertake a detailed survey of the existing roof, investigating any inherent problems and their causes.

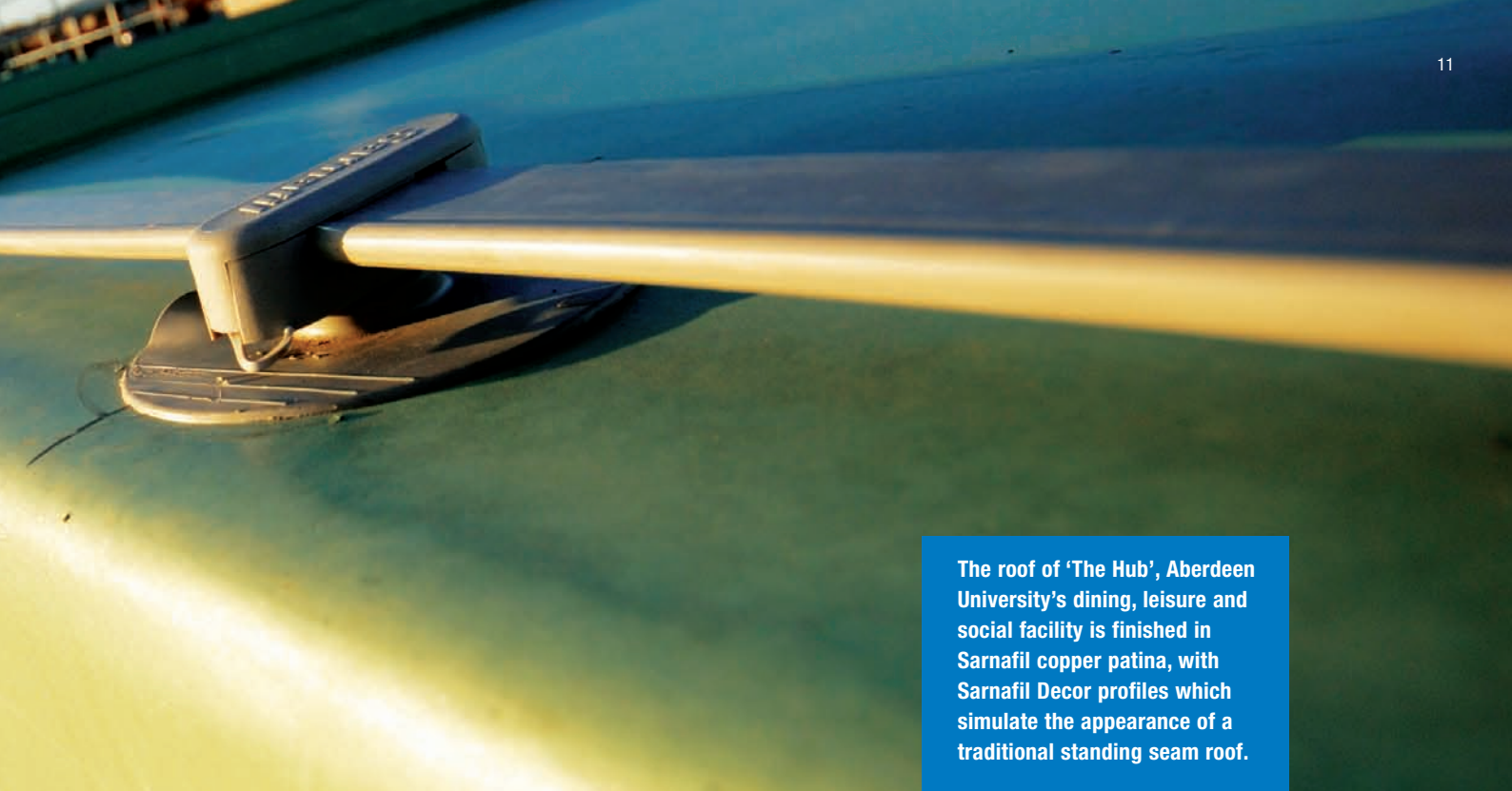
During this investigation a photographic record will be made and, where deemed appropriate, investigative methods such as core samples, thermography and pull out tests will be used to confirm the condition of the existing roof.



Core sample recording

Photographic records being made for a roof survey report.





The roof of 'The Hub', Aberdeen University's dining, leisure and social facility is finished in Sarnafil copper patina, with Sarnafil Decor profiles which simulate the appearance of a traditional standing seam roof.

Roof Management design and specification service

Using the findings from the detailed survey the Roof Management Department will create a comprehensive roof survey report, detailing the existing build up, any problems identified and the recommendations for remedial action. The survey report will also include a full re-roofing specification, project specific CAD drawings, wind load calculations and condensation risk analysis. Whole life cost evaluations can also be included upon request.

Competitive tendering with Roof Management

The dedicated Roof Management project support team will assist the client in preparation for obtaining competitive tenders from experienced Sarnafil trained, specialist refurbishment Roof Management contractors.

Roof Management specialist contractors

These are contractors who specialise not only in the installation of Sarnafil membranes but also in the refurbishment-roofing sector. Only by working with such

specialists are we able to offer a separate Final Inspection Certificate (FIC), which protects the client against the risks of a workmanship based failure.

The Roof Management Project Team

Throughout the project a dedicated Roof Management project support team will remain as the clients' key Sarnafil points of contact. The dedication and professionalism of this support team has built strong relationships with many of our repeat clients, earning their respect and trust. Once the project is completed our service is evaluated by a customer satisfaction survey.

The Sarnafil Roof Management Guarantee

The Roof Management Guarantee provides a single point of responsibility, and ensures that the client is protected against the risks of incorrect design, defective materials or poor workmanship, through the issue of our Final Inspection Certificate (FIC) and Extended Products Guarantee. We believe this guarantee is the most comprehensive available in the roofing industry.



Draw on our knowledge and expertise

We offer a comprehensive range of information and support resources for architects, contractors and other specifiers, including:

- Experienced Technical Advisers, who can help you to develop specifications
- Comprehensive technical literature
- Scalable, layered CAD detail drawings thermally modelled by the BRE available to download free online at www.sarnafil.co.uk

We are the complete single ply roofing specialist for:

- Surveys and site inspections
- Specification and design support
- New installations
- Refurbishment
- Solar roofing solutions
- CPD Seminars
- Installer training
- ISO 9000:2000 quality management system
- ISO 14001 environmental management system

The Single Ply Roofing Association (SPRA) represents membrane manufacturers, associated component manufacturers and specialist sub contractors and aims, through a quality assured partnership, to ensure the delivery of best value single ply roofing systems.

By specifying products and specialist installation by SPRA Manufacturer, Associate and Contractor members you can be assured that all parties meet strict quality criteria. Compliance with these criteria and with the Code of Conduct is assessed at application, by annual audit and by random spot checks.

For further information, and to obtain copies of the SPRA Design Guide and other documents, go to www.spra.co.uk or call 0115 914 4445.



For further information about Sarnafil products and our range of services, please call us on 01603 709360 or visit www.sarnafil.co.uk.

To the best of our knowledge all information contained in this brochure was correct at the time of issue. Printed on paper from sustainable forests.



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