

Refurbishment Projects

Flat roof solutions





George Street
Edinburgh

BUILDING BOARD

Roof Size: 889m²

Waterproofing: Bauder Total Roof System

Project: Refurbishment roof with a retrofit terrace

Our Company

A family business in the fourth generation

Bauder is one of Europe's leading manufacturers and suppliers of modern waterproofing, thermal insulation, green roofs, and photovoltaic systems for refurbishment flat roofs.

We have a long-standing history in the roofing sector and produced our first roof related products more than 160 years ago. Today, Bauder stands for high-quality, top-performance flat roof solutions that are durable, cost-effective, and sustainable.

Why surveyors, facilities managers and building owners choose us

Clients choose us because of the way in which we do business, the way we treat every project individually, and how we work alongside customers, contractors, and all relevant stakeholders from project inception through to completion to deliver the best solution for a building.

Our service to you

As part of our service, we work on a one-to-one basis to ensure that the roof specification we generate for you meets the needs of the building and project stakeholders and will confirm suitability of the solution to each roof area. Our technical support is completed with a final inspection of the installation and guarantee.

Specifying the right solution

For refurbishment projects, our range of waterproofing solutions can be used with some systems lending themselves to a particular project depending on the design, cost, additional sustainability focus, and life expectancy.

Our design team will support you through all the considerations required for evolving the roof with facility upgrades, such as adding a green roof or PV array, whilst also creating a scheme that safeguards the underlying Bauder waterproofing.





**Wythenshawe Forum
Manchester**

BUILDING BOARD

Roof Size:	4,809m ²
Waterproofing:	Bauder Total Roof System, BauderSOLAR F
Specifier:	Manchester City Council

Technical Support Service for Refurbishment Projects

Supporting you in the design of a replacement roof to meet the needs of the building and all stakeholders

Our technical managers are based nationwide and play a vital role in the success of every project from initial investigative stage through to hand-over and sign-off of the Bauder installation.

We assist you with the design of the detailing, writing the specification for the flat roof solution, and recommend suitable approved contractors to tender for the project. The service is without charge, and we work with you to ensure your roof specification meets all your needs.

Working with you to understand

- Building type and usage.
- Drivers for refurbishment, scope of roof failure, and any planning constraints.
- Need for additional scientific roof diagnostics.
- Requirements for waterproofing system design life.
- Opportunity for adding a green roof or solar PV array to meet sustainability targets.
- Budget.
- Waterproofing system requirements.
- Upgrading insulation to meet building regulations.
- Funding opportunities available.
- Guarantee requirements.

Our service to you delivers

- Roof survey and plans.
- Conditions of existing roof covering and identification of water ingress.
- Recommended waterproofing system.
- Full design service for green roof or solar PV with yield analysis.
- Comprehensive detailed specification.
- Upgrade insulation solution.
- Thermal analysis and condensation risk calculations.
- Falls and drainage design with tapered insulation scheme, where required.
- Wind load and restraint calculations.
- Detail drawings for roof penetrations, abutments, and edge finishes.
- Proposed rooflight structures and other rooftop accessories.
- Guarantee options to fulfill cover requirements for the project.
- Recommended approved contractors.



Flat Roof Survey

Establishing the existing condition of the roof and identifying areas of concern

Your technical manager will carry out an in-depth roof condition survey to assess the status of the existing roof coverings, structural design, and thermal performance.

Establishing the build-up and condition

Core sampling provides information on the material construction of the roof waterproofing, insulation incorporated, and deck type whilst also providing evidence where water ingress may have occurred.

Multiple core samples are taken at strategic locations to further establish the build up, whether there is tapered insulation present, to find entrapped water in the system, and to establish consistency of the build-up on the entire roof area.

Photographic records of each core sample are taken and used within the finished report for visual evidence with clarification of the location.

Survey report

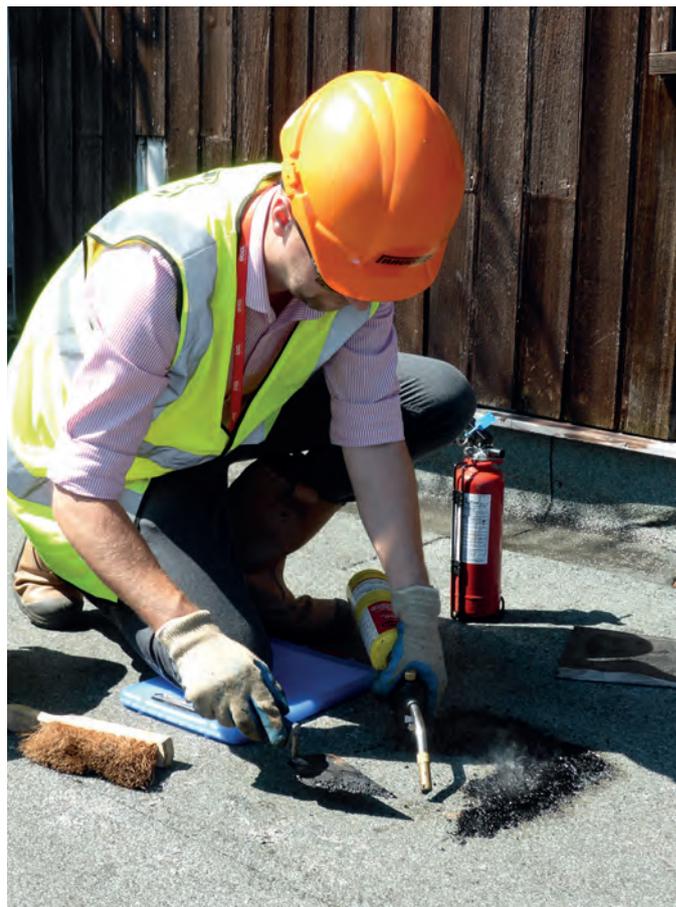
Once all the information from our site roof survey has been collated, our technical managers produce a bespoke survey report. The depth of information in the report can vary based on the client's requirements.

All reports will confirm the findings from the core samples taken and the condition of the roof build-up at the point that the sample was taken. The content of the survey report would then normally encompass:

- The deck.
- Existing waterproofing.
- Falls and drainage.
- Upstands and details.
- Rooflights.
- Plant and equipment.
- Associated works.

Recommended solution

The survey report then concludes with a roofing system proposal based on the client's requirements and to conform to current regulations. A budget price for the proposed roofing works can also be included, together with health and safety information.



Advanced Survey

Roof diagnostics to verify the levels and locations of entrapped water within existing waterproofing

Objective information about the true condition of a roof, eliminating conflicting opinions and advice so that sound decisions can be made on the roofing options without conjecture.

Moisture mapping with a density gauge

Moisture mapping is suited for all roof structures, including those with multiple layers of insulation and previously overlaid waterproofing systems.

Measurements are generally performed in a two-metre grid pattern plotted on a scaled drawing of the roof. Once readings at all grid points have been recorded, software is used to create a precise moisture map of the roof area and its condition.

The report

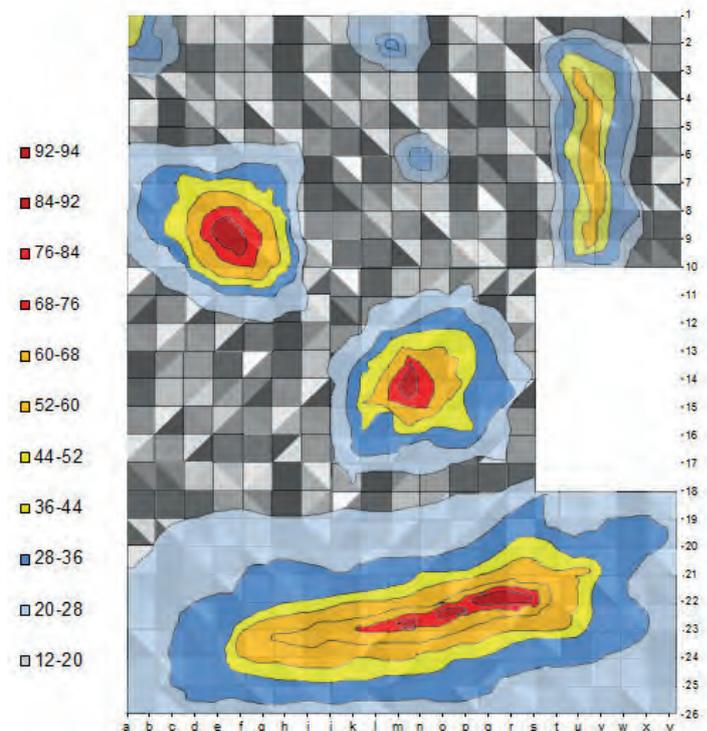
The report identifies areas of dry and moisture impeded insulation so that suitable recommendations can be made and remedial work is only carried out on essential areas through partial or isolated removal of damaged roof areas rather than a full removal of the entire existing system. The report also identifies if the waterproofing is sound enough to be overlaid entirely without damaging levels of water becoming trapped. This comprehensive analysis enables accurate costings to be put forward for budget certainty.

Plus points

- Decisions for roof repair are based on accurate, scientific information rather than assumptions and opinions.
- Precise roof areas are pinpointed for specific remedial action.
- Detailed scope of works ensures that remedial work is only carried out on essential areas.
- Saves money by eliminating unnecessary removal of existing waterproofing which, in turn, reduces waste and disposal of the existing roofing system that have the potential to be overlaid.
- Provides enhanced cost data at an early stage.



ROOF MOISTURE PLOT



Energy Loss Assessment

Complementing the advanced survey to give information relating to energy loss through the existing roof system

Giving calculated estimates of the energy gains when the insulation is upgraded or replaced and anticipated energy generation with pay-back periods for a BauderSOLAR PV array.

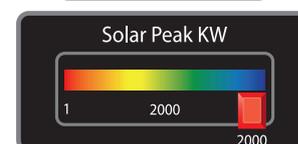
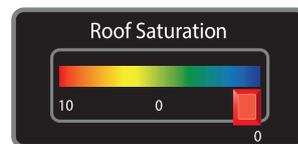
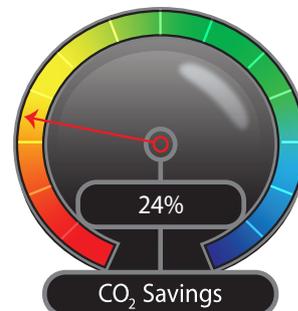
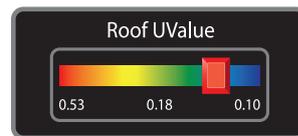
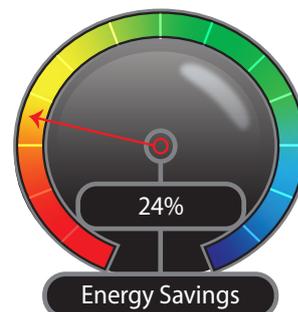
CarbonDASH

Using bespoke software, we can provide an estimate of the actual cost saving along with carbon reduction figures and a total energy percentage saving per year. The software can also be used to estimate energy loss through saturated insulation due to long-term water ingress. When used in conjunction with our moisture mapping service this can be very useful to determine the payback on the client's investment when upgrading or replacing insulation.

Additionally, this software is used to give cost benefits when a BauderSOLAR F PV system is incorporated within the new proposal. This provides up front guidance on the payback period and expected gains from the renewable energy generation and upgraded insulation.

Plus points

- Energy loss of existing roof calculated.
- Cost savings for upgrading with insulation and solar PV quantified.
- Payback periods ascertained.



Creating Roof Falls

Effective roof drainage using tapered insulation which reduces construction costs considerably

To meet building standards, flat roofs should be designed with a minimum fall of 1:40 to ensure a finished fall of 1:80 can be achieved, allowing for any inaccuracies in the existing deck.

Tapered insulation is a convenient, quick to install, and cost-effective method of providing falls to the roof. It is available in different thicknesses to achieve the required fall and desired thermal requirements.

BauderPIR FA

Foil-faced on both sides to increase thermal efficiency and installed with our unique ridge and valley infill boards to simplify the scheme and reduce material waste on site.

BauderGLAS

Available as bitumen or tissue faced in standard falls of 1:80, 1:60 & 1:40 and achieves Euroclass E Rating. In a multi-layer scheme an unfaced board is used as a base layer and this board achieves Euroclass A1 rating.

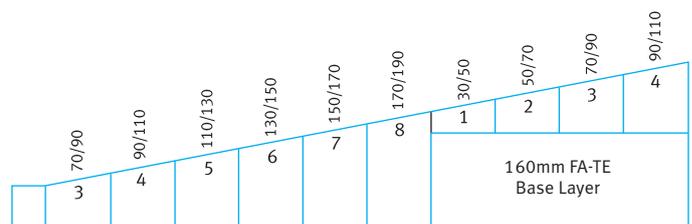
BauderROCK

The tapered boards are faced and achieve Euroclass A2-s1,d0 rating. An unfaced flatboard is used in multi-layer schemes and this board achieves Euroclass A1 rating.

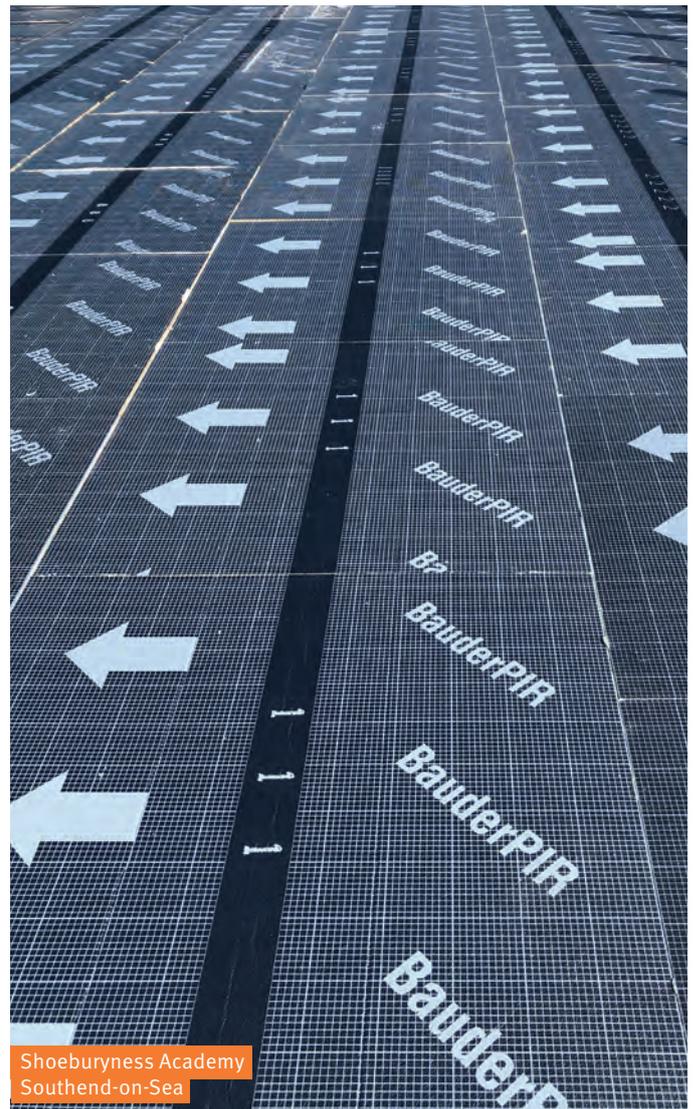
Tapered scheme design service

Our technical department will design the bespoke tapered insulation scheme and layout design in accordance with the latest building standards:

- BS 6229:2018 for falls on flat roof surfaces.
- BS 5250 for control of condensation in a building.
- U-value calculations in accordance with BS 6946 Annex E (calculation method) to confirm the thickness required and/or U-value achieved.



Multi-layered designs are created with a flatboard as a base layer atop which the tapered boards are installed.



Shoeburyness Academy
Southend-on-Sea

Specialist Technical Support and Guaranteed Quality

Delivering technically correct flat roof solutions

We pride ourselves on being more than just a manufacturer and supplier. Our single point service ensures your roof design and installation is cohesive to reduce risk.

Flat roofs can be perceived as simplistic in both their appearance, design, and installation. However, there is a precision to the detailing that must be adhered to so that the solution remains watertight, endures and resists the elements, and stands the test of time.

Technical design

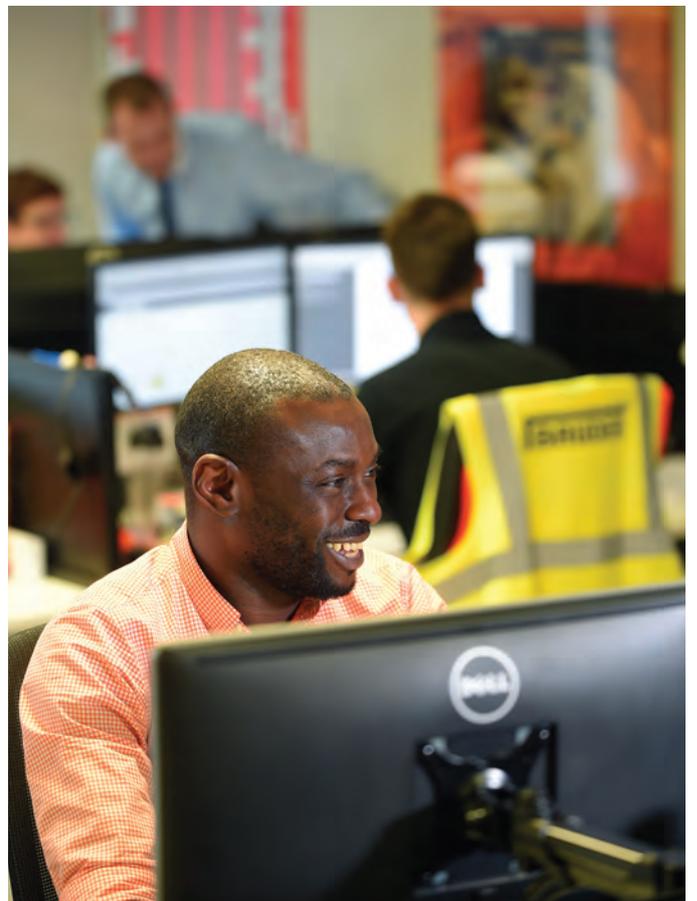
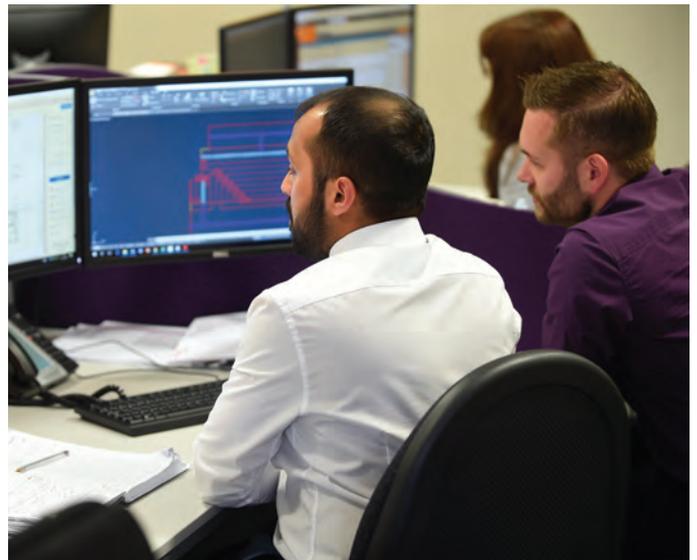
Our technical department is highly proficient at interpreting complex designs to create bespoke details and calculations for all our waterproofing systems.

- Detail design.
- Thermal performance and condensation risk analysis.
- Wind load and restraint calculations.
- Drainage calculations.
- Tapered insulation scheme and layout, where required.
- Acoustic solutions performance.
- PV array design and output.

Installation

Design and quality of the roofing materials contribute greatly to the performance of a flat roof, as well as the expertise of the installer. You can be assured that the waterproofing, PV, and green roof will be of the highest standard. The quality of our installations is ensured through:

- Approved contractors.
- Certified installers.
- Installation monitoring.
- Site technician support.
- Completion inspections.
- Full sign-off.
- Guarantee issue.





Private Residential Homes
Scotland



Clarence Lane Estate
London

Waterproofing for Roofs, Terraces, Balconies, and Walkways

Portfolio of systems for refurbishment projects

Our range comprises three categories of waterproofing systems to meet different needs, with some systems well-suited to a particular project.

Reinforced bitumen membrane systems

Noted for their lifespan and ability to sustain foot traffic as well as loads associated with the installation and maintenance of typical rooftop plant. Some systems are suitable to upgrade with a green roof or solar PV system.

Single ply systems

Lightweight and advantageous if the project has load bearing considerations as system is typically 2-3kg/ m². The membranes are strong and flexible, composed predominantly of synthetic polymer principally polyvinyl chloride (PVC) and flexible polyolefin (FPO).

Cold liquid applied systems

Flexible, seamless waterproofing for roofs and terraces, and balconies and walkways. The systems fully bond to the substrate, easily form around complex detailing, around high concentrations of rooftop plant, and in constrained areas of access.

Hot melt structural waterproofing

Robust and flexible hot applied polymer modified bitumen system applied in two layers and incorporating a polyester reinforcement allowing it to be self-healing to minor punctures. Intended to refurbish podium roofs.

Plus points

- Our specification service will confirm suitability of waterproofing system for each roof area.
- Range of flatboard insulations and tapered for creating falls, including non-combustible options.
- BBA and EPD certification.
- Fire testing to BROOF(t4) on affirmed combinations as verified in our BBA certificates.
- Comprehensive range of guarantee packages to suit project requirements.



Discovering Rooftop Environmental Solutions

Upgrading a flat roof to increase purposeful values and accelerate towards net zero carbon

We have sustainably focused solutions that reduce energy wastage, contribute to the environment, generate renewable energy, and help buildings meet Government policy.

Insulating roofs

Reducing building energy usage through effective roof insulation. There are different options depending on whether you are constructing a warm or inverted roof, the usage of the building, and project requirements. Further information on page 20.

Creating a sustainable environment

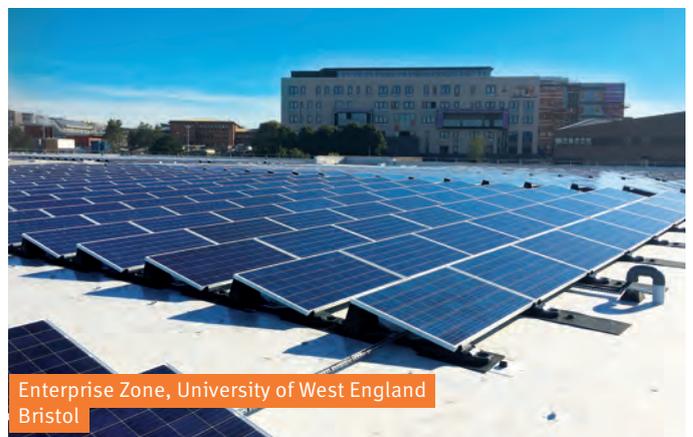
Retrofitting a green roof brings back a piece of nature and the roof space can be vegetated with low maintenance plants for a simple solution. A Bauder green roof combines the finished planting scheme and all its supportive components with a secure waterproofing system. Read more on page 18.

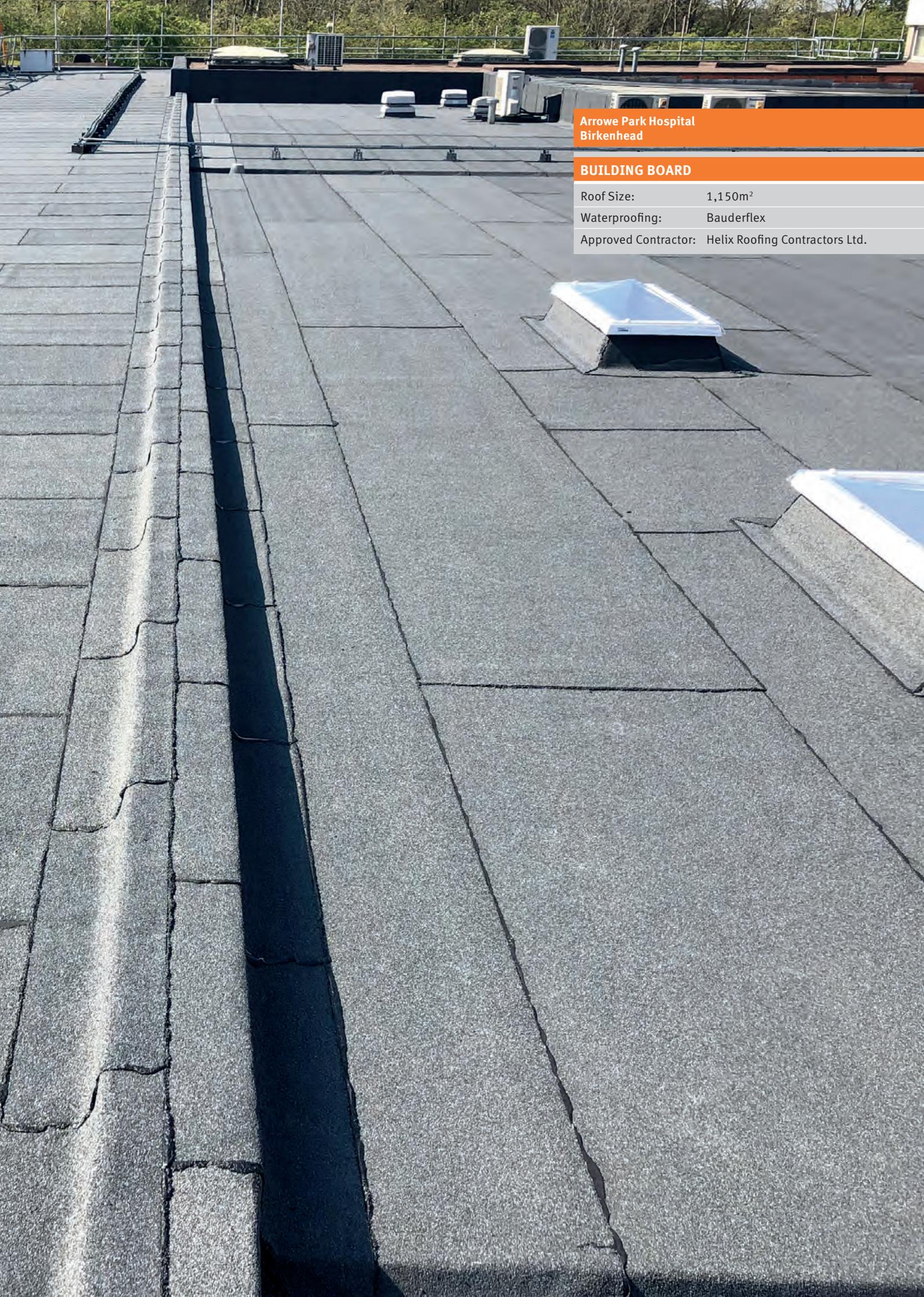
Using the roof to generate energy

Retrofitting solar photovoltaic (PV) panels onto a roof produces significant financial savings through the generation of renewable energy. Installing this form of site-sourced electricity can be simpler than perceived. The lightweight BauderSOLAR F is between 9-12kg/m², depending on the panels selected, making it suitable for retrofit applications. See page 19.

Plus points

- Our specification service will confirm suitability of waterproofing system and functional upgrade for each roof area.
- Transforming roof spaces to support energy use, nature, sustainability, and the environment.
- Technical calculations for thermal performance and outputs of solar PV.





**Arrove Park Hospital
Birkenhead**

BUILDING BOARD

Roof Size:	1,150m ²
Waterproofing:	Bauderflex
Approved Contractor:	Helix Roofing Contractors Ltd.

Reinforced Bitumen Membrane Systems

Robust polymer modified bitumen membranes for durability and strength

These systems can sustain heavy foot traffic as well as loads associated with the installation and maintenance of typical rooftop plant. Our flat roof designs follow Safe2Torch guidance for details where combustible materials are located.

Bauder Total Roof System Plus (BTRS PLUS)

Our premium waterproofing system, utilising the latest manufacturing technology. BauderKARAT is our dual modified 5.2mm cap sheet.

Enhance with:

- Green roofs
- Solar PV

Bauder Total Roof System (BTRS)

This system offers a range of membranes for a tailored solution for each project. BauderK5K is the SBS modified bitumen cap sheet.

Enhance with:

- Green roofs
- Solar PV

Bauderflex

This system offers a commercial alternative for the specifier on a prudent budget. The system uses the BauderK4E 4.2mm thick cap sheet.

Enhance with:

- Green roofs
- Solar PV

System Airtech

When hot works need to be minimised, our torch-free solution uses self-adhesive membranes and hot air lap welding across the entire roof.

BauderTHERM 'Stripes' SL500

Single-layer torch-applied overlay membrane specifically for refurbishment projects to lengthen the operational life span of the existing waterproofing.

Plus points

- Range of insulations and tapered schemes for creating falls, including non-combustible options.
- Fire testing to BROOF(t4) on affirmed combinations as verified in our BBA certificates.
- Comprehensive range of guarantee packages to fulfil cover requirements for the project (dependant on system/product selection). For more information contact our technical dept for a sample guarantee outlining cover level, terms and conditions.



Single Ply Systems

Cost-effective, lightweight waterproofing for projects where load-bearing limits are a factor

Key advantages are the lightweight nature of the waterproofing and quick installation times with a choice of adhered, mechanically fixed, or loose laid under ballast, all with hot air welding of the laps.

Bauder Thermofol System

Industry popular PVC single ply waterproofing system utilising high grade polymer formulation for a flexible membrane that is easy to install. The system can feature extruded profiles to enhance the aesthetic appearance and membranes are available in a range of colours and thicknesses.

Enhance with:

- Extensive green roofs
- Solar PV

Bauder Thermoplan System

Our FPO single ply waterproofing system utilises high grade alloy of thermoplastic polymer and rubber formulation for a membrane that has no inherent memory and will not shrink. The system includes FM Approved Assemblies as defined on the FM online database 'RoofNav'.

Enhance with:

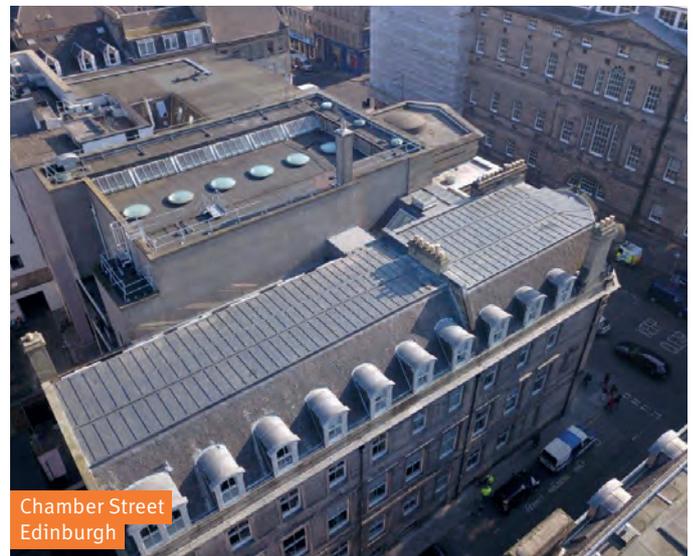
- Green roofs
- Solar PV

Bauder Profiled PIR Infill Overlay System

This solution incorporates a PIR insulation infill that is cut to match profiled sheet metal and roof structures. The system then adds a BauderPIR FA flatboard insulation and a single ply membrane to provide an overlay solution that can increase thermal performance of the building.

Plus points

- Range of insulations for warm roof and inverted construction, and tapered schemes for creating falls, including non-combustible options.
- Fire testing to B_{ROOF}(t4) on affirmed combinations as verified in our BBA certificates.
- Range of membrane colours.
- Comprehensive range of guarantee packages to fulfil cover requirements for the project (dependant on system/product selection). For more information contact our technical dept for a sample guarantee outlining cover level, terms and conditions.



Cold Applied Liquid Waterproofing

Lightweight liquid coating forms a seamless waterproofing membrane

Liquid roofing systems encapsulate and fully bond to the surface they are applied to and are particularly suited for areas with a high degree of complex detailing, around high concentrations of rooftop plant, and in constrained areas of access.

Bauder LiquiTOP Roof System

Single-component, moisture triggered PU that incorporates a glass fibre mat reinforcement applied as a two-coat system, or a three-coat option for additional service life. It is a wet-on-dry application.

Bauder LiquiTEC Roof System

This is a fast-curing, two coat, wet-on-wet PMMA formulation waterproofing that is polyester reinforced. The system is appropriate for cold, warm, and inverted roof constructions, with a green roof, and roof terraces when protected with hard landscaping. The system is FLL approved for green roofs.

Enhance with:

- Extensive green roofs

Bauder LiquiTEC Balcony and Walkway System

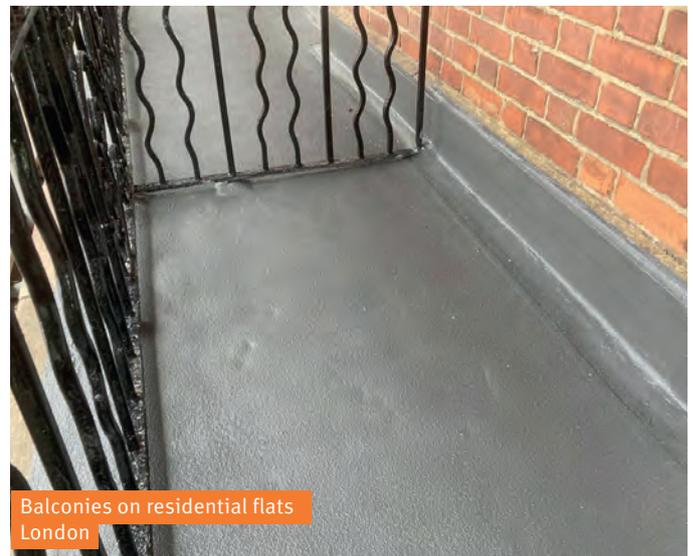
This is a thick layered system developed to provide the optimum combination of aesthetic and functional requirements for balconies and walkways. Designed to be hard wearing and slip resistant, the system can also be used for stairs and stairwells with a choice of surface finishes.

Plus points

- Suitable for complex detailing and constrained areas.
- Range of insulations including non-combustible option.
- Fire testing to B_{ROOF}(t4) on affirmed combinations as verified in our BBA certificates.
- Comprehensive range of guarantee packages to fulfil cover requirements for the project (dependant on system/product selection). For more information contact our technical dept for a sample guarantee outlining cover level, terms and conditions.



Canberra House
Swindon



Balconies on residential flats
London



Extensive Green Roofs

Low maintenance, lightweight, simple systems with no general access

Extensive green roofs have thin layers of substrate to keep depth and weight to a minimum. They are delivered for a variety of reasons, the most popular being for biodiversity.

Substrate extensive green roofs

Designed to be comparatively lightweight, and support low maintenance plant species which are generally self-sustaining, wind, frost, and drought tolerant.

The vegetation finish can comprise:

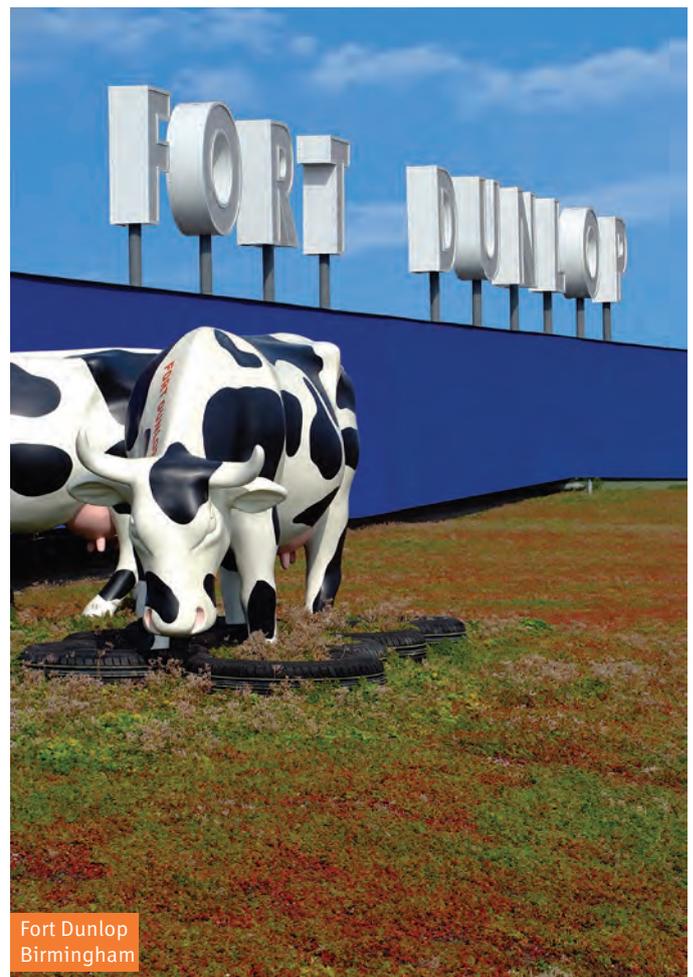
- A biodiverse habitat to encourage a wider spread of birds, insects, and plant species.
- Pre-grown vegetation blankets for wildflowers or sedum species.
- Plug-plants where the selection and location of each plant can be clearly identified.
- Seeded roofs for a specified selection to suit particular locations.

Sedum system

Quick and easy to install, all in one blanket vegetation system for instant greening of a roof. The BauderGREEN XF 301 sedum blanket comprises mature sedum species pre-grown on an integrated blanket with 20mm of substrate and incorporates a multifunctional water retention and filter layer.

The system has been developed for use directly over our waterproofing.

More information on specifying the right solution for your project is available in our green roof brochure or via our website bauder.co.uk/green-roofs



Fort Dunlop
Birmingham



Bacton Tower
London

Solar PV Roofs

BauderSOLAR F gives the power to create renewable energy on flat roofs

The ideal space for a PV array to ensure maximum output of energy. The BauderSOLAR F system is designed to ensure the integrity of the waterproofing system beneath is upheld.

About the system

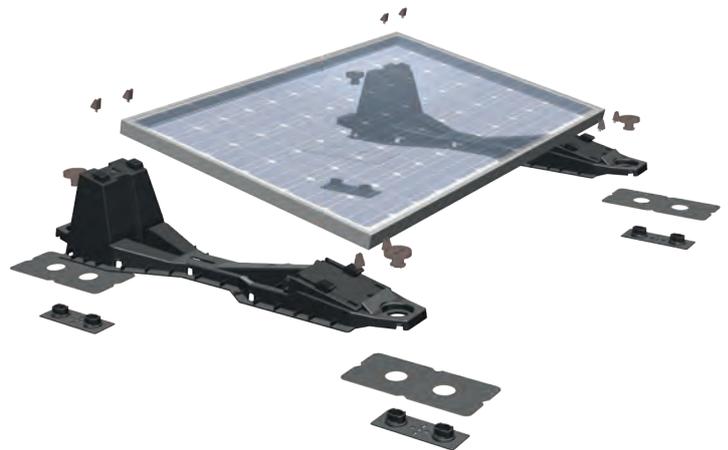
BauderSOLAR F is suitable for retrofit projects due to its lightweight design which ranges from 9 to 12.5kg/m², depending on the module selected, and does not require the additional weight loading of ballast to counteract wind uplift.

The solar PV module and the substructure combine to form a single unit that is secured to the roof without any penetration of the waterproofing or roof deck.

Plus points

- Installed on BTRS PLUS, BTRS, Bauderflex, and both of our single ply systems.
- Installation with no penetrating fixings to ensure waterproofing integrity and reduce risk.
- Single source for integrated design and guarantee responsibility for the waterproofing and PV installation.
- Lightweight, with BauderSOLAR F weighing 9 to 12.5kg/m², depending on client module choice.
- Easy to maintain.
- Comprehensive range of guarantee packages to suit project requirements.

More information on specifying the right solution for your project is available in our solar PV brochure or via our website bauder.co.uk/solar-pv



Bauder Insulations

Upgrading the thermal efficiency of flat roofs

Improving thermal performance of a heated building to meet Building Regulations, reduce building running costs, and have a positive effect on the environment.

BauderPIR **W T**

Efficient, strong, inert, with good compressive strength making it suitable for all kinds of load bearing decks.

BauderVIP **W S**

Vacuum insulation panel designed to provide high thermal performance in areas with limited installation height and is ideally suited for roof terrace applications.

BauderROCK **W T N**

Mineral fibre insulation, when unfaced, achieves Euroclass A1 rating. The insulation has exceptional acoustic and fire resistance properties. Faced insulation for warm roofs achieves A2-s1,d0 rating.

BauderGLAS **W I T N**

Cellular glass insulation that gives high compressive performance and the unfaced and inverted boards achieve Euroclass A1 rating. Faced insulation for warm roofs achieves Euroclass E rating.

Inverted insulation

This is utilised when refurbishing podium roofs and our service will advise the best type for the project.

Tapered insulation

A cost-effective method for creating falls on a warm roof with BauderPIR, BauderROCK, or BauderGLAS.

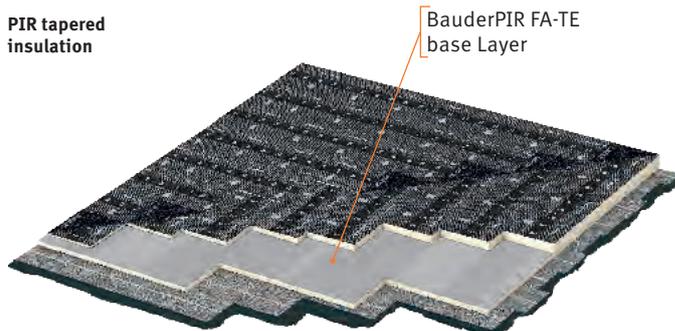
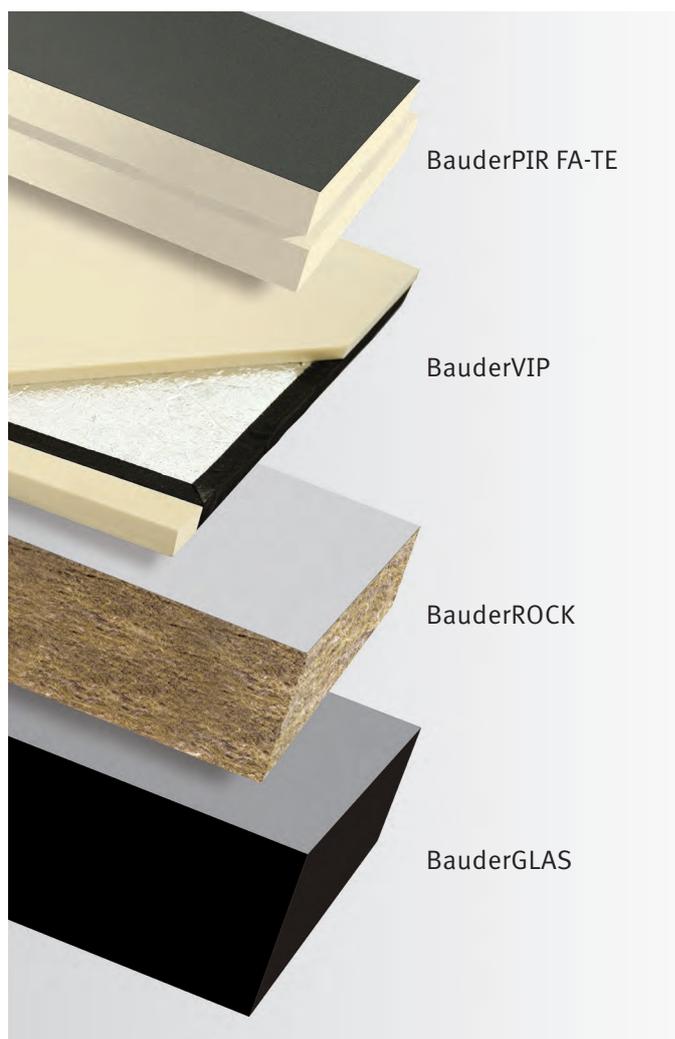
Design service

Our technical department design bespoke schemes to comply with BS 6229:2018, supply U-value calculations in accordance with BS 6946 Annex E, confirm the thickness required, and provide a layout design.

More information on specifying the right insulation for your project is available via our website bauder.co.uk/insulation

Key:

- I** = inverted roof
- N** = non-combustible
- S** = specialist insulation
- T** = tapered available
- W** = warm roof



Rooflights

Satisfying your glazing requirements from standard modular units to specialist structural units

All our roof glazing products are manufactured to comply with current Building Regulations and Health & Safety requirements and are fully compatible with our roof waterproofing systems.

Our rooflights are installed with a comprehensive guarantee to give total confidence and complete peace of mind.

Bauder standard modular rooflights

Superior design to provide high standards of illumination, insulation, and ventilation to the interior of flat roofed buildings.

Special modular rooflights

Provide single sources of daylight that could comprise circular rooflights and glass rooflights.

Continuous rooflights

Triple glazed UV-protected polycarbonate with vented airspaces and are available in a width of up to 2.4m.

Walk-on rooflights

These support foot traffic on roof terraces and gardens and ground floor areas over basement rooms whilst providing natural daylight to the spaces below.

Modular link glazing

Custom built, aluminium framed panel glazing system bespoke for each project.

Structural rooflights

Bespoke structural glazing installations allow designers complete freedom when incorporating natural daylight to a roofing project.

AOV

Smoke vents that improve the conditions inside a building in the event of a fire by allowing hot air and smoke out, and cool air to flow in.



Rainwater Outlets and Accessories

Maintaining waterproofing compatibility over the entire roof

When specified within Bauder waterproofing systems as an integrated component, these products are included within our system guarantee. As part of our service, our technical department can provide drainage calculations for your flat roof project.

Bitumen membrane insulated rainwater outlets

Bauder insulated outlets offer excellent flow rate performance and maintain thermal continuity at drainage points for warm and inverted roof constructions. The BRE certified high thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body.

Single ply outlets

Specifically designed and created for our Thermofol and Thermoplan systems, the outlet flanges are finished in our PVC or FPO membranes to allow direct welding of the single ply waterproofing to the flange.

Outlets for cold applied liquid systems

Refurbishing a roof with a cold applied liquid solution will often involve an overlay of the current system. In this scenario the existing outlet will be retained and waterproofed as part of the installation.

Where a warm roof is specified, the solution will utilise our rigid PVC outlets.

Accessories

Our range of accessory and ancillary products complete the full roof package for a single point guarantee on the entire Bauder roof solution.



Bitumen membrane outlet



Single ply parapet outlet



Patmore Estate
London

BUILDING BOARD

Roof Size:	9,000m ²
Waterproofing:	Bauderflex
Client:	Wandsworth Council
Approved Contractor:	Amber Construction Services Ltd

Project Studies

BT Workstyle Building, Sevenoaks

Synopsis

The profiled metal roof had historical leaks at junctions with cladding and in the guttering which required remedial action. The roof was overlayed using the Bauder Profiled Overlay System with Thermofol waterproofing and profiled insulation infills to ensure the building could remain operational throughout the refurbishment roofing works.

System summary

Waterproofing Bauder Profiled PIR Infill Overlay System with Bauder Thermofol System

Rooflights Bauder Modular Rooflights

Highlights

- Offices remained operational throughout.
- Bespoke profiled insulation overlay eliminated the need to replace the existing metal profile roof.



BUILDING BOARD

Roof Size:	6,000m ²
Specifier:	Lambert Smith Hampton
Approved Contractor:	Acclaim Contracts Ltd

Canberra House, Swindon

Synopsis

The existing roof on the offices was leaking so a full site survey was carried out. From the results, the client's preferred solution was to overlay the existing roof with LiquiTOP cold applied liquid system as it was not possible to decommission the in situ plant in order to remove the failing waterproofing.

System summary

Waterproofing Bauder LiquiTOP System

Highlights

- High levels of rooftop plant, creating a complex installation.
- To overcome drainage challenges, secondary upstands were created under the plant and fabricated channels placed underneath allowing water to drain through to the drainage points.



BUILDING BOARD

Roof Size:	985m ²
Specifier:	Rapleys LLP (Bristol)
Approved Contractor:	Central Roofing & Building Services Limited

Project Studies

Baker Street, London

Synopsis

Water ingress on this commercial building needed urgent remedial work and the client wanted a full refurbishment with a social roof terrace created for staff. The existing waterproofing was completely replaced using BTRS with wildflower blanket in zones to create an oasis of biodiversity in the middle of the city.

System summary

Green Roof BauderGREEN WB wildflower blanket
Waterproofing Bauder Total Green Roof System
Insulation BauderPIR Tapered Insulation

Highlights

- Specific delivery schedule for green roof installation.
- Unity for schedule of works for all trades on site.



BUILDING BOARD

Roof Size:	1,400m ²
Specifier:	Marks Barfield Architects
Approved Contractor:	Durable Contracts

Freebournes Road, Witham

Synopsis

A large derelict warehouse located in Witham underwent major renovation to transform it into a storage centre for Essex County Council who wanted the building to act as a benchmark for sustainability.

The failing roof was stripped back to the deck and replaced with a Bauder RBM system along with a BauderSOLAR F PV array array to generate green energy.

System summary

Waterproofing Bauder Reinforced Bitumen Membrane System
Insulation BauderPIR Tapered Insulation
Solar PV BauderSOLAR F

Highlights

- Bespoke survey identified full replacement required.
- 588 solar PV panels achieving a kilo-watt peak of 150.



BUILDING BOARD

Roof Size:	5,200m ²
Client:	Essex County Council
Approved Contractor:	Acclaim Contracts CJ Solar

Project Study

Hexagon Tower, Manchester

Synopsis

Hexagon Tower is a specialist science and technology facility located in North Manchester. The roofs of the laboratories were experiencing water ingress due to poor original detailing and aged interfaces. Whilst looking to replace the failing roof, the client also wanted to upgrade the thermal performance to achieve a BREEAM rating of 'very good'.

Full survey was carried out to identify the water ingress and establish the areas that could be overlaid and those that needed to be replaced. The roof areas were refurbished with Bauderflex and 120mm BauderPIR FA-TE Insulation.

System summary

Waterproofing Bauderflex

Insulation BauderPIR FA-TE Insulation

Highlights

- Full investigative survey.
- Detailed report and bespoke specification.
- Building occupied throughout all roofing works.
- Complex detailing and new free-standing guard rail.
- Project advice and ongoing installation inspections.



BUILDING BOARD

Roof Size:	6,000m ²
Specifier:	IF Building Consultancy
Approved Contractor:	BBR Roofing Ltd

Project Study

The Market Building, Plymouth

Synopsis

The derelict Grade II historic fruit and veg market hall has been transformed into an awe-inspiring collaborating co-working space and digital place for people to socialise, learn, and be inspired within an immersive dome.

The project brief included achieving a BREEAM rating of 'very good', retaining many of the original features, and extending the construction.

The roof was refurbished with two waterproofing systems, BTRS and Thermofol, with the new cinema featuring a 15 metre, 360° dome incorporating BauderROCK insulation for acoustic performance.

Systems summary

- Waterproofing** Bauder Thermofol System to pitched roof areas and dome.
Bauder Total Roof System to plant room flat roof.
- Insulation** BauderPIR on main roof and plant room roofs.
BauderROCK on dome roof.

Highlights

- BREEAM credentials.
- Acoustic performance with BauderROCK.
- Flat and pitched roofs.
- Roof refurbishment and new roofs on structural extensions.
- Design and technical support.



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