BAUDER
making roofs secure.

New Build Projects

Flat roof solutions

River Street Tower, Manchester

BUILDING BOARD

Roof Size:	1,774 m²
Roofing Systems:	Hot Melt waterproofing system with wildflower blanket green roof and hard landscaping
Specifier:	Simpson Hough & Partners
Approved Contractor:	Liquid Roofing Ltd.

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 and blue roofs, and photovoltaic systems for 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, the Bauder name is synonymous with quality and value, providing flat roof solutions that are sustainability-focused and built to last.

Why architects and building designers choose us

Clients choose us because of the way 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 new build projects, our range of waterproofing solutions can be used, with some systems lending themselves to a particular project depending on the design, cost, planning requirements, sustainability focus, and life expectancy.

Projects can often be required by planning to include an element of green roof with vegetation or recreational space, blue roof capacity for SuDS, or photovoltaics for energy generation. Our design team will support you through all the considerations required for their inclusion whilst also creating a scheme that safeguards the underlying Bauder waterproofing.

CCPI-assessed product information

We have adopted the new Code for Construction Product Information (CCPI) across our roofing portfolio to have information assessed for accuracy and clarity to ensure specifiers can rely on the data when selecting a Bauder solution.

Jan, Mark, and Tim Bauder

Bauder UK Headquarters, Ipswich

Technical Support Service for New Build Projects

Supporting you to deliver compliant, appropriate, and on-budget flat roof solutions

Our technical managers are based nationwide and play a vital role in the success of every new build project, from conceptual 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 construction and any planning constraints
- Requirements for adding a green roof, blue roof, or solar PV array
- Building's design life
- Useable roof space
- Budget
- Waterproofing system requirements
- Funding opportunities available
- Sustainability targets
- Guarantee requirements

Our service to you delivers

- Recommended waterproofing system
- Full design service for green roof, blue roof, or solar PV with yield analysis
- BIM objects, NBS Chorus, and Bauder detailed specifications
- Thermal analysis and condensation risk calculations.
- Falls and drainage design
- Wind load and restraint calculations
- Detail drawings for roof penetrations, abutments, and edge finishes
- Roof plans
- Tapered insulation scheme and layout, where required
- Inclusion of insulated outlets and soil vent pipes
- Proposed rooflight structures and other rooftop accessories
- Guarantee options to fulfill cover requirements for the project
- Recommended approved contractors

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

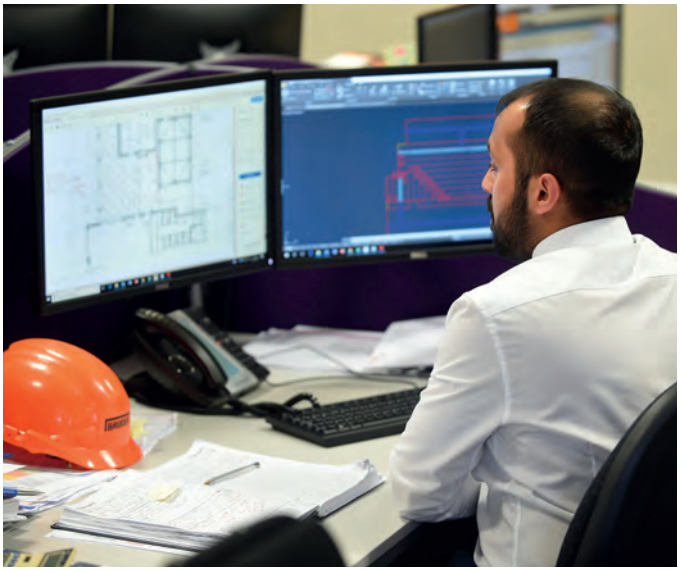
Our technical department is highly proficient at interpreting complex designs to create bespoke details and calculations for all our waterproofing systems, covering the following:

- 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 does the expertise of the installer. You can be assured that your waterproofing, PV, green roof, or blue roof will attain the high standards set by Bauder. The quality of our installations is ensured through:

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



Oughterard National School,
Oughterard

BUILDING BOARD

Roof Size:	3,400 m²
Waterproofing:	Bauder Thermofol system
Specifier:	JJ Rhatigan
Approved Contractor:	Deane Roofing & Cladding

Waterproofing Systems for Flat Roofs

Portfolio of systems for new constructions

Our range comprises four categories of waterproofing systems enabling us to provide the most suitable solution for any given project. CCPI verification for our systems ensures specifiers have unambiguous and accurate information when selecting a Bauder solution.

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, blue roof, PV system, or all three.

Single ply systems

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

Hot melt structural waterproofing

Specified primarily for new build construction of protected, inverted, or buried roofs such as blue roofs, biosolar PV roofs, green roofs, paved terraces, podiums, plazas, and car parks. Priced to help projects remain on-budget.

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.

Plus points

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

Rachel Maddocks School, Waterlooville

IAAPS, Bristol and Bath Science Park

City Park 1, Aberdeen

Edrich Terrace, Lord's Cricket Ground, London

Noah's Ark Children's Hospice, Barnet

BUILDING BOARD	
Roof Size:	5,100 m²
Roof Systems:	Bauder Total Green Roof System BauderSOLAR G Light with extensive green roof
Specifier:	Squire and Partners
Approved Contractor:	Voland Roofing Limited
Green Roof Contractor:	Bridgman & Bridgman
PV Installer:	Joju Solar

Delivering Rooftop Environmental Solutions

Use a flat roof to increase purposeful values

To accelerate towards net-zero carbon, we have sustainably-focused solutions that reduce energy wastage, contribute to biodiversity, generate renewable energy, and help building designers and constructors 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 pages 22 and 23.)

Creating a more sustainable environment

Each green roof brings back a piece of nature and the roof space can be vegetated to suit the access levels desired. A Bauder green roof combines the finished planting scheme and all its supportive components with a secure waterproofing system. (Read more on pages 15 and 16.)

Attenuating large proportions of annual rainfall run-off

A blue roof offers a drainage method designed to manage stormwater on a flat roof for up to a 48-hour period via a restrictive flow outlet. Ideal for urban areas where options for ground-based attenuation systems are limited or where construction is being carried out within flood-sensitive areas. (See page 17.)

Using the roof to generate energy

A flat roof is the ideal place for a solar photovoltaic (PV) installation to generate site-sourced electricity. Combining PV with an integrated green roof system or blue roof forms our biosolar solution. (Pages 18 and 19.)

Plus points

- Suitability of waterproofing system and functional upgrade for each roof area confrmed by our specification service
- Transforming roof spaces to support people, nature, sustainability, the environment, flood prevention, and energy use
- Technical calculations for thermal performance, outputs of solar PV, and rainwater flow rates for blue roofs

Lagg Distillery, Isle of Arran

Dept of Engineering, University of Cambridge

Photo Credit: Ivegate Ltd

Retail Distribution Centre, Peterborough

Reinforced Bitumen Membrane Systems

Polymer modified bitumen membranes for durability and strength

These BBA-certified systems can sustain heavy foot traffic as well as loads associated with the installation and maintenance of typical rooftop plant. Warm, cold, and inverted 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 for a formidable waterproofing solution. Once the project includes a green or blue roof, our root-resistant BauderSMARAGD is specified as the cap sheet to form the Bauder Total Green Roof System Plus (BTGRS PLUS).

Enhance with:

• Green roofs • Blue roofs • Solar PV • Biosolar 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 • Blue roofs • Solar PV • Biosolar PV

Bauderflex

This system offers a commercial alternative for the specifier on a prudent budget. The system uses the BauderK4E cap sheet and BauderPLANT E 42 for green roofs.

Enhance with:

• Green roofs • Solar PV • Biosolar 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.

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
- System information assessed by the CCPI
- Bespoke range of guarantee packages to fulfil cover requirements for the project (dependant on system/product selection); for more information, contact our technical department for a sample guarantee outlining cover level, terms and conditions.

Paxman Academy, Colchester

Single Ply Systems

Multi-layer synthetic roof waterproofing for projects where load-bearing limits are a factor

A key advantage is the lightweight nature (typically 2 kg/m²) of the waterproofing and installation times with a choice of adhered, mechanically fixed, or loose-laid under ballast, with hot air welding of laps.

Bauder Thermofol

Industry popular PVC single ply waterproofing system utilising high grade polymer formulation for a flexible membrane that is suitable for a variety of new build roof designs. 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 • Biosolar PV

Bauder Thermoplan

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.

Enhance with:

• Extensive green roofs • Solar PV • Biosolar PV

Both Thermofol & Thermoplan systems have FM Approved Assemblies as defined on the FM online database, RoofNav.

Plus points

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

Clarin College, County Galway

Gloucester Bus Station

Hot Melt Structural Waterproofing

Monolithic, fully bonded installation for cold or inverted constructions

Flexible hot applied polymer modified bitumen system applied in two layers and incorporating a polyester reinforcement. The system is intended to last the design life of a building when fully protected or buried.

Bauder Hot Melt System

Hot melt structural waterproofing is particularly advantageous for protected, inverted, or buried roofs such as biosolar roofs, blue roofs, green roofs, paved, terraces, podiums, plazas, and car parks.

Cost-effective as a waterproofing system since the specifier may expect no future replacement costs once installed as it is anticipated that its durability will match the expected life of the building.

The liquid applied polymer modified bitumen forms a 100% bond to the deck and Safe2Torch installation guidance is followed for detail design where combustible materials are located.

Enhance with:

• Green roofs • Blue roofs • Biosolar PV

Credit: University of Central Lancashire

University of Central Lancashire, Preston

Plus points

- Suitable for zero falls (no back falls) on the structure
- Range of insulations for inverted construction, including non-combustible options
- Fire testing to BROOF(t4) on affirmed combinations as verified in our BBA Certificate
- System information assessed by the CCPI
- Bespoke range of guarantee packages to fulfil cover requirements for the project (dependant on system/ product selection); for more information, contact our technical department for a sample guarantee outlining cover level, terms and conditions.

Greenbank Student Village, University of Liverpool

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 • Biosolar PV

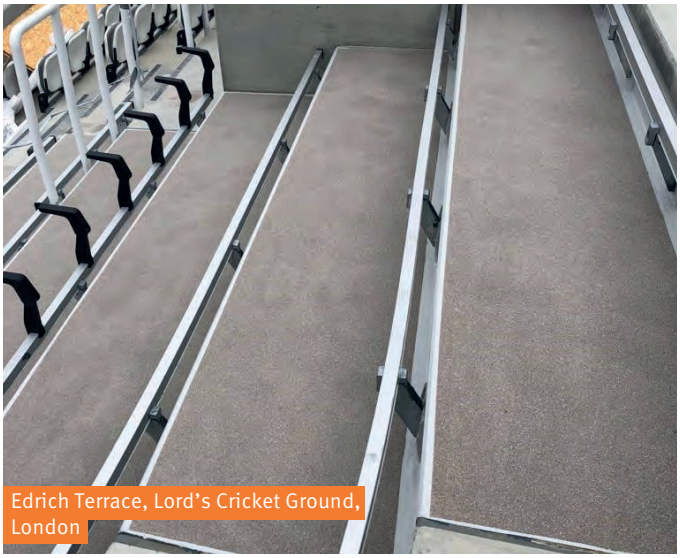
Bauder LiquiTEC Balcony and Walkway System

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 resist slipping. 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 options
- Fire testing to BROOF(t4) on affirmed combinations as verified in our BBA certificates
- System information assessed by the CCPI
- Bespoke range of guarantee packages to fulfil cover requirements for the project (dependant on system/product selection); for more information, contact our technical department for a sample guarantee outlining cover level, terms and conditions.

Inverness Justice Centre, Scotland



Edrich Terrace, Lord's Cricket Ground, London

Humanities Research Institute,
Sheffield Hallam University

Intensive Green Roofs

Creating outdoor spaces with soft vegetated aspects and hard landscaped access zones

Publicly accessed rooftops and podiums with quality, reliable landscape components for the green roof build up that are compatible with the waterproofing solutions beneath.

There is a large scope for the design of a roof garden, and it is important to balance the landscape finish to be achieved with the overall weight of the system and the construction of the supporting structure.

An integrated approach is crucial for the design and specification of both the waterproofing and landscaping components to achieve the best results. We will work with you from the earliest design stage to ensure that your green roof project comes to fruition beautifully.

Soft landscaping

The finished roof and all its supportive components are specified explicitly to meet the needs of the planting scheme and depths of substrate required to sustain the plants. An early-stage, unified approach is crucial for realisation of the design and the long-term success of the envisaged green roof.

- Flower beds
- Lawns and turfed areas
- Shrubs
- Trees

Hard landscaping

Creating low maintenance accessible areas such as walkways, access roads, and terrace spaces with bedded paving, pedestal supported finishes, or specialist surfaces. These spaces can also include container planting set atop the hard landscaping for an aesthetic appearance.

- Paths
- Patios
- Terraces
- Access roads
- Driveways

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

Marischal Square, Aberdeen

Enterprise Centre, Coventry University

Extensive Green Roofs

Low maintenance, lightweight 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 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
- Inclusion of a BauderSOLAR G LIGHT biosolar array with seeded vegetation (see page 18)

Sedum system

Relatively quick and easy to install, all-in-one blanket vegetation system for instant greening of a roof. The BauderGREEN XF301 sedum blanket comprises mature sedum species pre-grown on an integrated blanket with 20 mm 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

The Pines, Falmouth

The Royal & Ancient Golf Club, St Andrews

Blue Roofs

Rooftop sustainable drainage solution to attenuate and slow the discharge of stormwater on a flat roof

BauderBLUE STORM systems are SuDS attenuation solutions that can form part of a larger green infrastructure strategy for urban areas where options for ground-based systems are limited, and where construction is being carried out within flood sensitive areas.

We have three systems for attenuating stormwater on flat roofs or podiums for up to a 48 hour period via a restrictive flow outlet that allows calculated discharge rates to match the SuDS report for the site.

The design of every blue roof is individual to the project, its geographical location and the flow rates defined within the SuDS site report for planning permission.

BauderBLUE STORMsub System

A green roof build up where the substrate and modified retention board delay the run-off into the flow restrictor outlets. The BauderGREEN RE 40 board is specified alongside defined depths of adapted lightweight substrate that has a high storage water capacity of 45%.

Finish options:

- Extensive and biodiverse vegetation

BauderBLUE STORMcell System

This system designs a void space between the waterproofing and the surface finish. The void is created by the BauderGREEN RWR 100 to allow water movement to the engineered flow restrictor outlet.

Finish options:

- Extensive, biodiverse, and semi-intensive green roofs
- BauderSOLAR G LIGHT • Paving • Stone ballast

BauderBLUE STORMvoid System

This system designs a void space with Bauder pedestals and paving finish to allow free-flowing water movement to the engineered flow restrictor outlet.

Finish options:

- Paving

Plus points

- Suitability of waterproofing system and type of blue roof for each roof area confrmed by our specification service
- Technical calculations for required discharge rate of the blue roof and its geographical location

BauderBLUE STORMcell | BauderBLUE STORMvoid

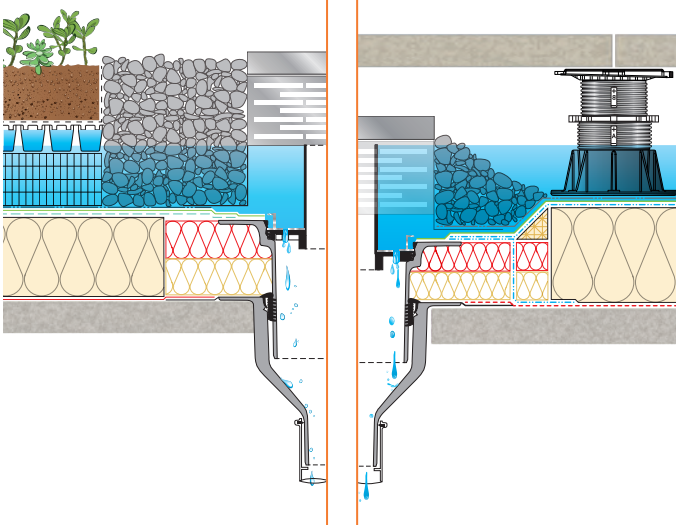
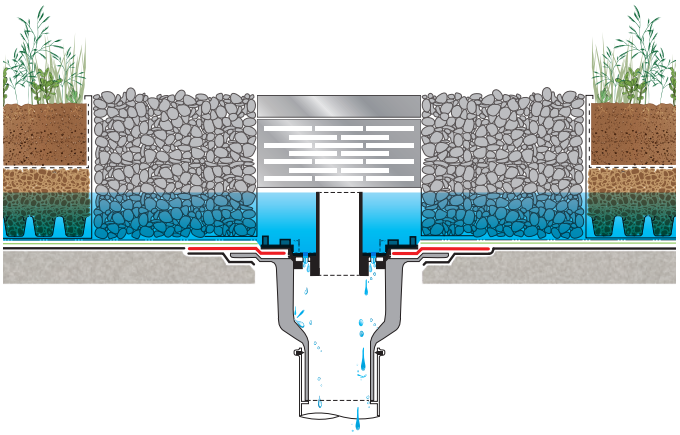


Illustration shows Bauder biodiverse green roof. All types of green roof finish are suitable.



Biosolar Roofs

BauderSOLAR G LIGHT combines a solar PV array with a green or blue roof to bring net-zero solutions into focus

Integrated solution for mounting photovoltaic renewable energy on a green roof or blue roof where the substrate and vegetation provide the ballasted installation mechanism to secure the array.

About the system

The BauderSOLAR G LIGHT system is suitable for new build construction projects and allows for the entire roof area to qualify as a green roof. The vegetation can focus on biodiversity and use a seed mix of native species plants for further Building Research Establishment Environmental Assessment Method (BREEAM)credit rating.

The vegetation assists in maximising solar energy generation as the green roof preserves ambient rooftop temperatures helping to keep the modules at optimal output.

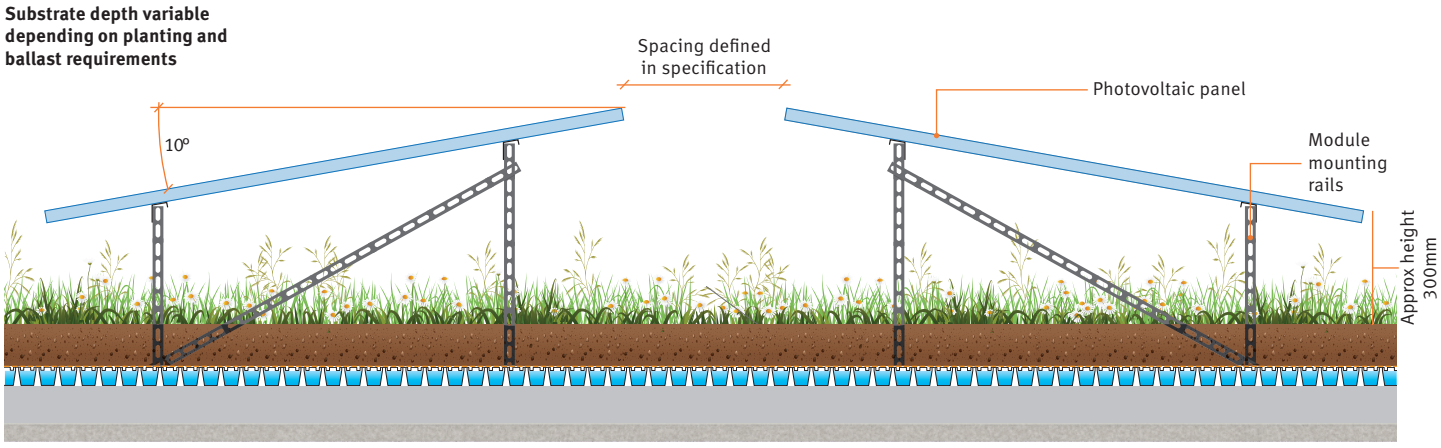
Clapham Park, London

University of Portsmouth

Characteristics

- Single source for integrated design and guarantee responsibility for the waterproofing and solar PV installation
- Maximises the roof area as entire space can qualify as a green roof
- Bespoke 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/biosolar



Solar PV Roofs

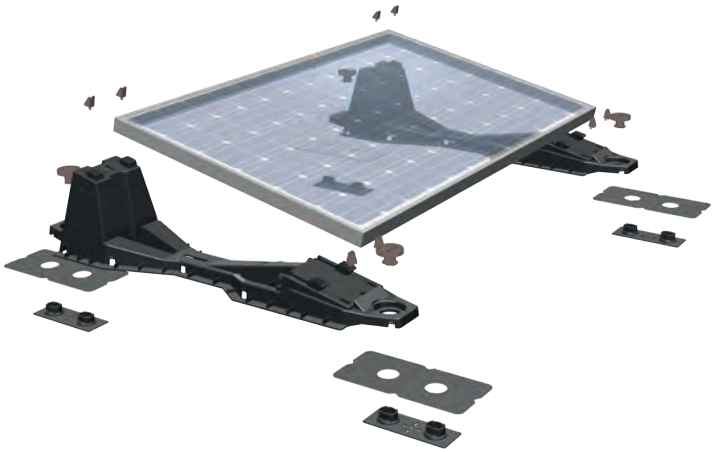
BauderSOLAR F gives flat roofs the power to create renewable energy

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 new build construction projects. Even with a relatively light weight range of 9 to 12.5 kg/m² (depending on module selected), it 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.



Characteristics

- 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
- System weight of 11-12.5 kg/m², depending on module selected and system layout
- Relatively easy to maintain
- Bespoke 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

Private Residence, Ipswich

Photo Credit: Ivegate Ltd

Retail Distribution Centre, Peterborough

Harwell Science & Innovation Campus, Didcot

Completing the Roof Package

Ensuring all components on our solutions are compatible and covered by our guarantee

As a responsible manufacturer and specialist, it is important to us to work with other key manufacturers that produce accompanying rooftop products such as rooflights, outlets, and trims, for which their installation may affect the integrity of our waterproofing.

Insulation

Our range of flat roof insulation products meet the needs and criteria for warm and inverted flat roofs and terraces through flatboard and tapered options. Our warm roof insulations can be mechanically fixed or bonded, depending on the waterproofing system. Inverted insulation is always ballasted with a variety of finishes, ranging from a fully accessible intensive green roof, through to a biosolar PV system, or simple pebble ballast or paving.

Rooflights

Roof glazing forms part of a lighting scheme and according to leading consultants, horizontal rooflights provide two and a half times more light than vertical windows.

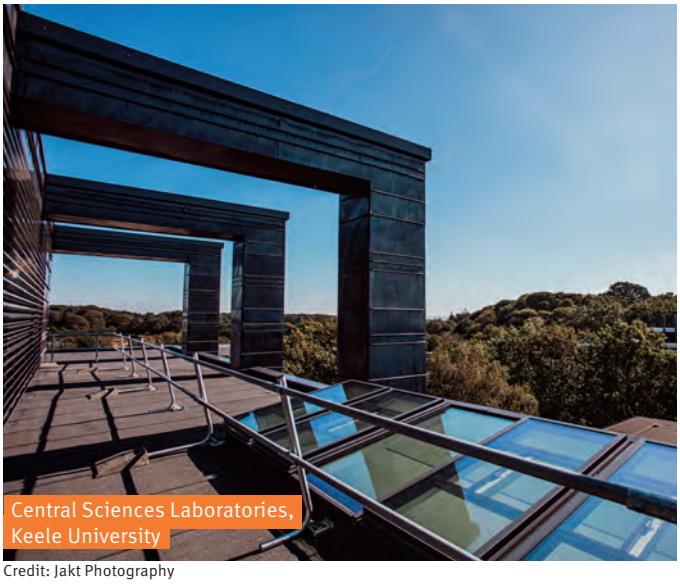
Outlets

Our outlets provide drainage for warm, cold, and inverted flat roofs and connect to internal or external rainwater systems.

To maintain thermal continuity at drainage points, our insulated outlets are manufactured with a Building Research Establishment (BRE)-certified polyurethane rigid foam body to prevent condensation forming on the underside of the outlet body.

Accessories

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



Central Sciences Laboratories, Keele University

Credit: Jakt Photography

Warm Roof Insulation

Creating energy efficient flat roofs

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

BauderECO
Certified biomass balanced Polyurethane insulation for a sustainable PIR flatboard.

BauderPIR T
Efficient and inert with verified compressive strength making it suitable for all kinds of load bearing decks.

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

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

BauderGLAS T N
Cellular glass insulation used where high compressive performance is required. The unfaced boards achieve Euroclass A1 rating, as a faced insulation Euroclass E rating is achieved. Used for inverted roof construction and for warm roofs in flatboard and tapered fabrication.

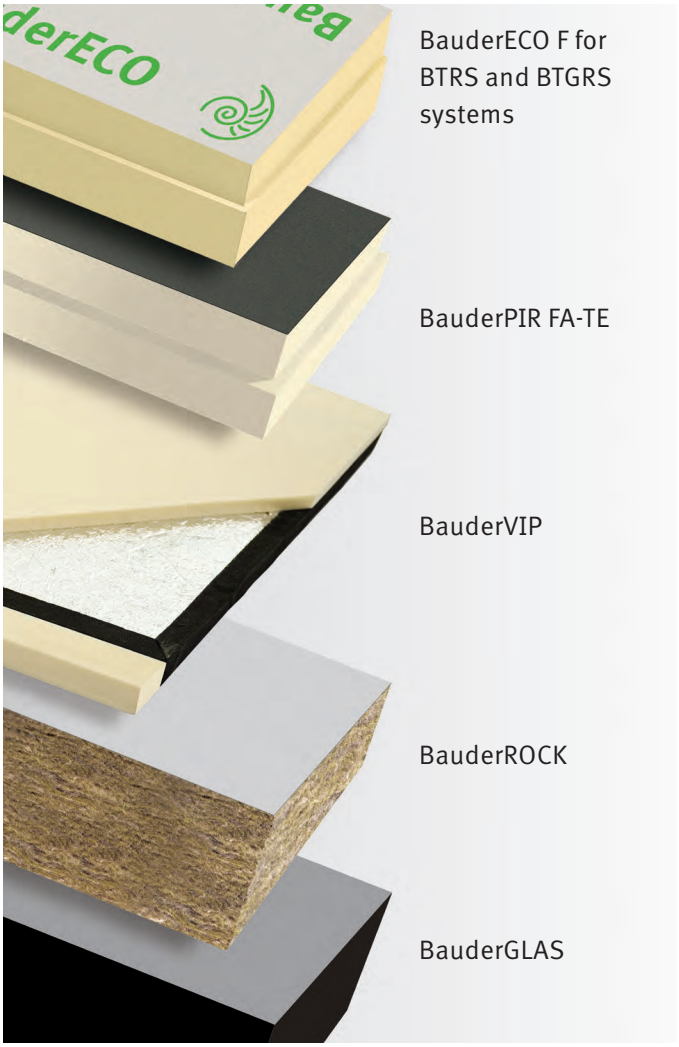
Tapered insulation

A method for creating falls on a warm roof and available with BauderPIR, BauderROCK, or BauderGLAS.

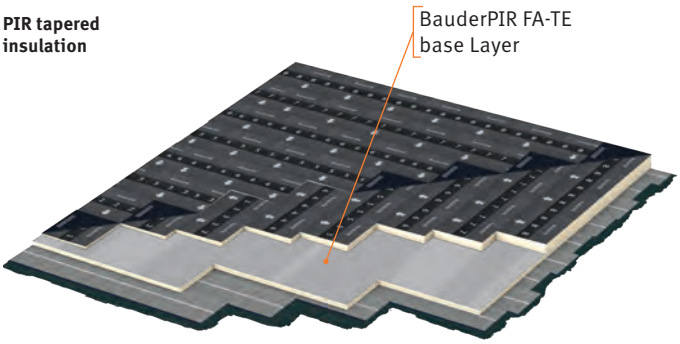
Design service

Our technical department design insulation solutions 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 for tapered schemes to aid installation on site.

Key:
N = non-combustible
S = specialist insulation
T = tapered available



PIR tapered insulation



Inverted Roof Insulation

Ballasted roofs delivering thermal performance to meet current standards

Insulation atop the waterproofing will include the addition of a water flow reducing layer (WFRL) to limit water passing around the insulation and having a cooling effect on the building.

BauderJFRI I
Closed cell expanded polystyrene (EPS) insulation for inverted roof construction with low water absorption properties.
- BauderJFRI PREMIUM+
- BauderJFRI PREMIUM 300

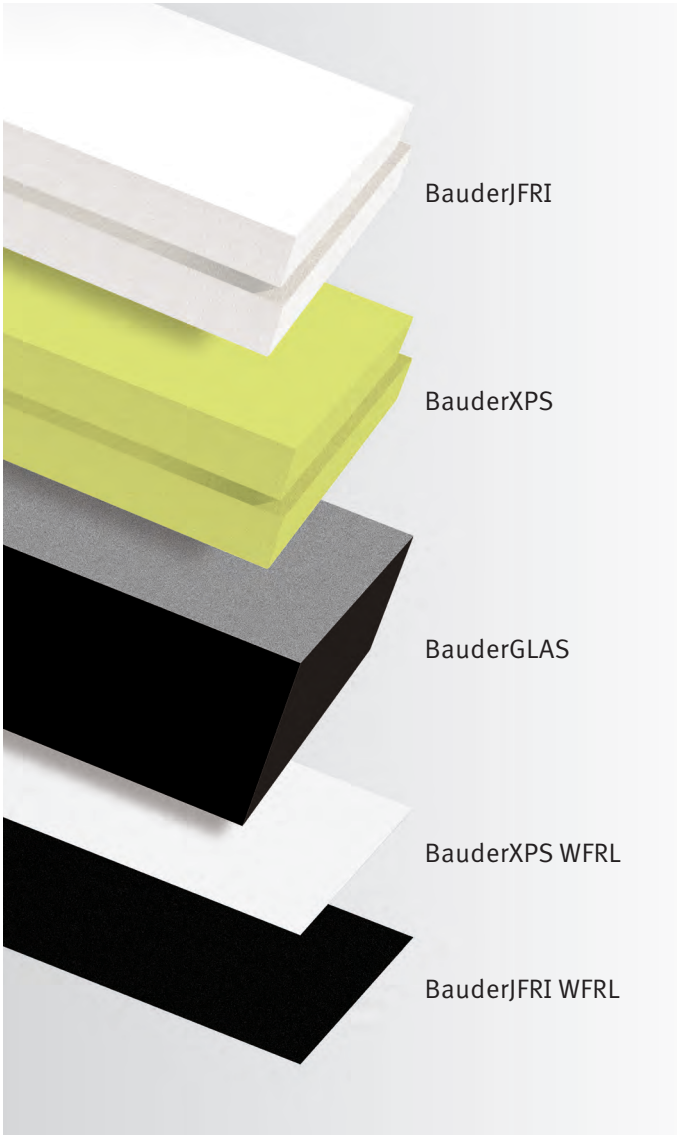
BauderXPS 300 I IU
CO_2-blown extruded polystyrene insulation with a closed cell structure which offers resistance to moisture for inverted roof construction

BauderGLAS Inverted I IU N
Non-combustible cellular glass insulation achieves Euroclass A1 rating, and gives high compressive performance compared to other insulants.

Water Flow Reducing Layers
These membranes are separator sheets that reduce the water flow between and below the insulation to reduce the cooling effect of rainwater and therefore improve the thermal performance of the insulation.
- BauderJFRI WFRL for JFRI and GLAS insulants
- BauderXPS WFRL for XPS insulant

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

Key:
I = inverted roof
IU = inverted upstand
N = non-combustible



EPD

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
Provide 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 available in a width of up to 2.4 m.

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.

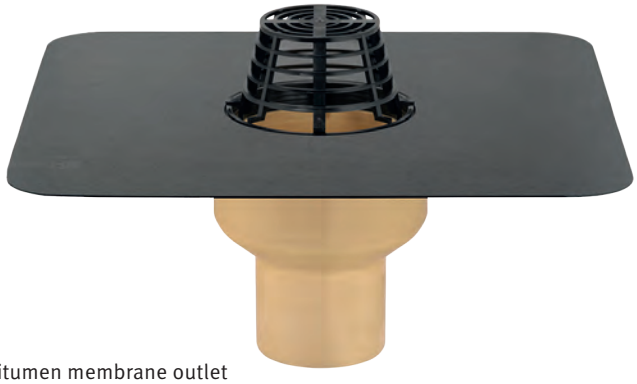
Rainwater Outlets

Maintaining waterproofing and outlet compatibility at drainage points

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 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 forming on the underside of the outlet body.



Bitumen membrane outlet

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.

Our rigid single ply outlets are utilised for our cold applied liquid waterproofing systems.

Single ply parapet outlet

Hot melt outlets

Thermally insulated outlets for connecting to conventional gravity drainage systems giving thermal continuity and flow rate performance. The outlets incorporate an integrated screw-down clamping ring and neoprene gasket for mechanical restraint to the waterproofing.

Blue roof flow restrictor outlets

Two types of outlets are available for blue roofs on bitumen membrane systems and hot melt systems. The adjustable flow restrictor is set and fixed according to the flow rates set for the building, and the overflow pipe is cut to the H-Max for the roof area.

Blue roof flow restrictor

Centre for Agriculture and Bioscience International (CABI), Oxfordshire

BUILDING BOARD

Roof Size:	2,044 m²
Waterproofing:	Bauder Thermofol system
Specifier:	Scott Brownrigg
Main Contractor:	Barnwood Construction
Approved Contractor:	Malone Roofing

Project Study

Centre for Agriculture and Bioscience International (CABI), Oxfordshire

Synopsis

Construction of a new centre for an inter-governmental, not-for-profit organization that improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment.

The client's objective for the new headquarters was to construct a two-storey, low carbon building that made a statement, whilst also blending into the surrounding countryside with sedums and a biodiverse landscape to attract insects and birds. A sedum green roof was specified for the main roof area atop Bauder Thermofol PVC waterproofing with PIR warm roof insulation.

Project challenge

The curve of the roof at some points reached over 30 degrees and posed a challenge to the roofing contractors to safely install the Bauder solution to the required standard. The pitch also defined that BauderGREEN RS 22 retention strips be installed at intervals of 1 metre to safeguard the vegetation blanket against shear force and wind uplift.

System summary

Waterproofing	Bauder Thermofol System
Insulation	BauderPIR FA
Green roofs	Sedum System and biodiverse green roof

Highlights

- Energy efficiency-focused building
- Pitch of roof curve reaches over 30 degrees at some points
- Maintenance access and safety systems
- Tight works programme
- Full Bauder technical support

Project Study

Clarin College, Athenry, County Galway

Clarin College,
Athenry, County Galway

BUILDING BOARD	
Roof Size:	8,550 m²
Design:	Smith Kennedy Architects Healy Partners Architects
Main Contractor:	JJ Ratigan & Co.
Approved Contractor:	Priority Roofing and Cladding Ltd

Synopsis

A design and build, two-storey education facility located in Athenry consisting of digitally equipped classrooms, specialist rooms, sports hall, study halls, recreation areas, staff amenities and extensive external facilities.

Acoustic performance of 35 dB indoor ambient noise level (IANL) was applied across all areas of the school, with control of reverberation being a key consideration in the gym.

The insulation needed to be non-combustible and achieve a U-value of 0.15 Wm²k which exceeds the thermal requirements as described in the Irish Building Regulations Technical Guidance Document L for flat roofs in schools.

System summary

Roof aesthetics Profiles for standing seam effect
Waterproofing Bauder Thermofol System
Insulation BauderROCK including acoustic infills to the troughs of the perforated metal deck over the gym

Highlights

- Fire safety specification
- Acoustic performance for all roofs
- U-value achieved by non-combustible insulation
- Early requirement for internal works to proceed required a self-adhesive bitumen membrane air and vapour control layer for provisional waterproofing
- Technical and design support

Project Study
Barony Campus, Cumnock

Synopsis
Barony Campus consolidates five schools into one campus and comprises a nursery, primary school, secondary school, supported learning centre, and sports facilities. To date, it is the biggest capital project undertaken by East Ayrshire Council.

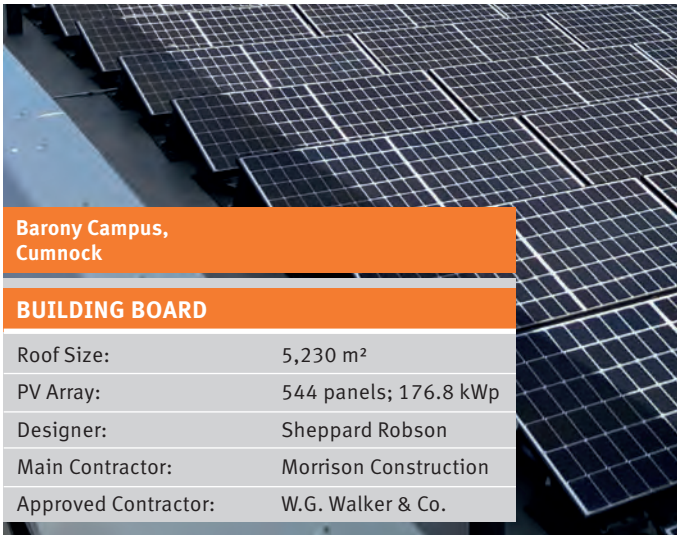
The client's objective was to bring sustainability to the heart of the design with solar panels on the central roofscape. Bauder single ply waterproofing with BauderSOLAR F was specified and comprised 544 solar modules to achieve an estimated 157,800 kWh per annum.

System summary

PV Array	BauderSOLAR F
Waterproofing	Bauder Thermofol system
Insulation	BauderPIR FA
AVCL	BauderSYN DB-PE 100

Highlights
- Sustainability-focused
- On-site green energy
- Aesthetic profiles for standing seam effect
- Flat and pitched roofs
- Roof design and technical support

Advocacy
EJ Parker: *"Our site team found the system very easy and quick to install. However, we found some challenges getting started due to the bad weather but once we finally began it was very straight-forward and fast to install. The technical help received from Chris and the team from design through to project completion was second to none."*



Barony Campus, Cumnock

BUILDING BOARD	
Roof Size:	5,230 m²
PV Array:	544 panels; 176.8 kWp
Designer:	Sheppard Robson
Main Contractor:	Morrison Construction
Approved Contractor:	W.G. Walker & Co.

Project Study

Maidenhill Primary School, Newton Mearns, Glasgow

Synopsis

The design of the new Maidenhill Primary School located in Newton Mearns, Glasgow, totalled 2,385 m² of roof areas. Different Bauder systems were installed including an extensive green roof and BauderSOLAR F PV system to meet sustainability targets.

Sustainability, acoustic performance, and a single source supplier that could provide a guarantee for products and workmanship for all the roof areas were identified as key factors in the selection of the roof solution.

The client wanted a consistent level of quality, design, and performance across all roof areas and Bauder's wide portfolio and service offered the single source solution for enhanced product consistency for the waterproofing, solar PV array, and green roof.

System summary

Main Roof

PV Array	BauderSOLAR F
Waterproofing	Bauder Thermofol system

Terrace Roof

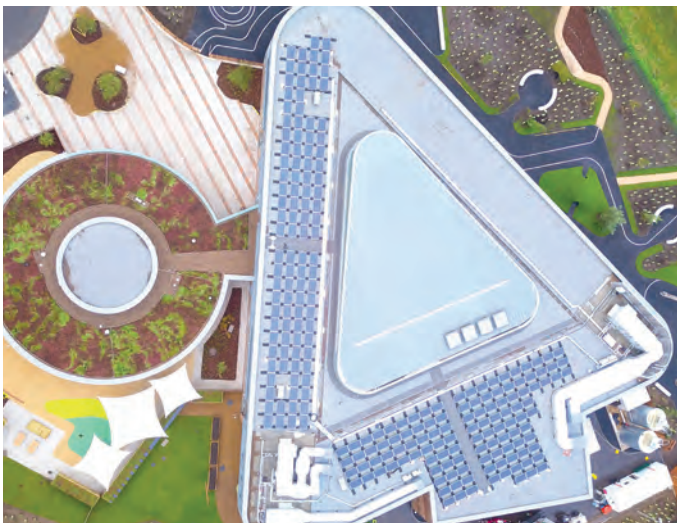
Waterproofing	Bauder Total Roof system

Lantern Roof

Waterproofing	Bauder Total Green Roof system
Green roof	Sedum system
Insulations	BauderPIR and BauderROCK

Highlights

- Winter start for roofing works
- High wind uplift location
- Tight materials delivery programme
- Long rolls of sedum blanket atop substrate-based green roof build up
- Thermofol membrane compatibility resolution adjoining BTRS roof areas



Maidenhill Primary School,
Newton Mearns, Glasgow

BUILDING BOARD

Roof Size:	2,385 m²
Waterproofing:	Bauder Thermofol system Bauder Total Roof system Bauder Total Green Roof system
Specifier:	BDP Architects
Main Contractor:	BAM Construction
Approved Contractor:	Procladd Scotland Ltd

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making roofs secure.

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