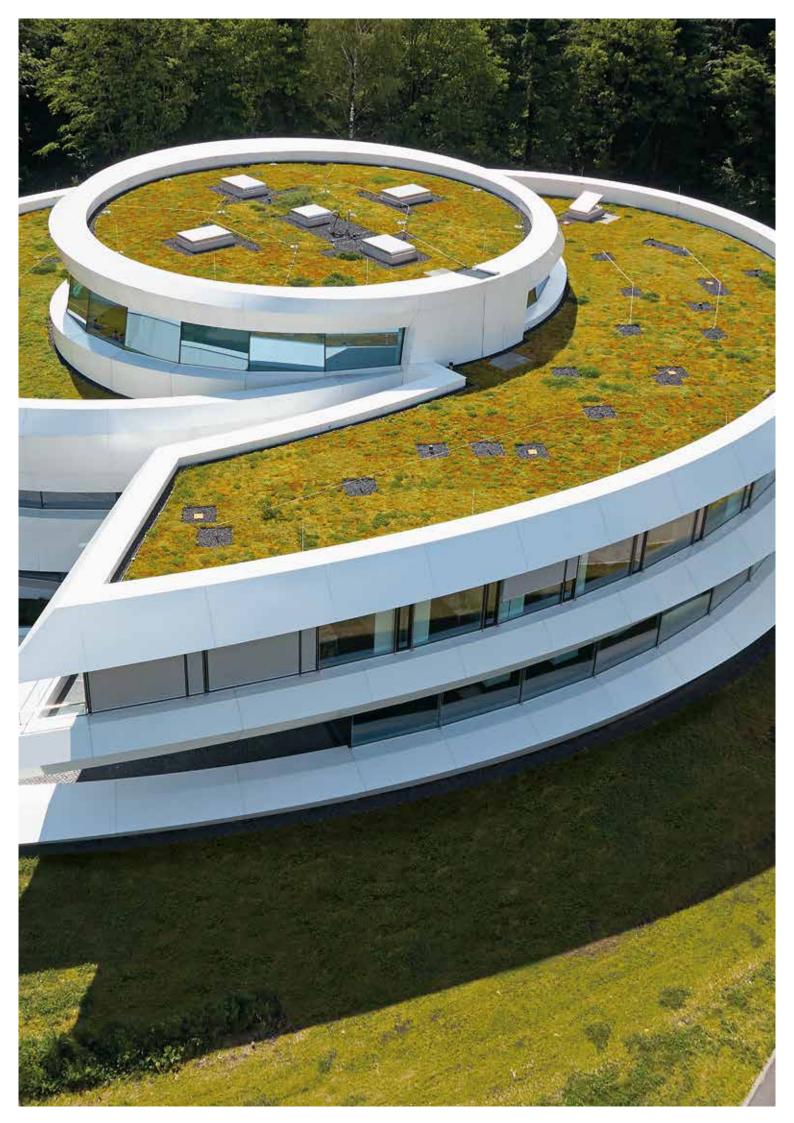
BAUDER



FLAT ROOF SOLUTIONS



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.

Markets are continually changing, and so are the demands that our customers place on us. We see this as an opportunity for healthy growth. Recognising the individual requirements of the markets and developing tailor-made, innovative solutions is our strength.

Our reputation is second to none, and one which continues to drive us forward as a strong, high calibre market leader.

Why Architects and Designers 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 project 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 can assist you with the design of the detailing, writing of the specification for the proposed waterproofing options and recommend suitable approved contractors with fully trained installers to tender for the project. The service is without charge and we work with you on a one-to-one basis to ensure that your roof specification meets all your needs and that of the building.

Our area technical managers play a vital role in the success of every project. Your dedicated technical manager will work closely with you to develop the most appropriate, budget aware and practical solution for your project. Then, working alongside our highly experienced technical department, a bespoke specification package is created for your individual project.

Your technical manager will remain involved through all stages of the project providing you with a single point of contact.

Specifying the Right Solution

For new build projects, any of our range of waterproofing systems can be used, with some systems lending themselves to a particular project depending on the design durability, cost 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 and our design team will support you through all the considerations required for the inclusion of these upgrades whilst also creating a scheme that safeguards the underlying Bauder waterproofing.







BITUMEN MEMBRANE SYSTEMS

Robust waterproofing with long-term durability and life-expectancy











We offer a complete range of modified bitumen solutions to suit project type and budget, and manufacture all membranes and insulation to exacting specifications and tolerances, ensuring full compatibility of components.

All our systems incorporate torch-safe detailing for roof details located on or adjacent to combustible materials.

When to Specify

A key advantage of a bituminous roofing membrane system is the exceptionally long lifespan. These systems can sustain heavy foot traffic as well as loads associated with the installation and maintenance of permanently sited rooftop plant. Some systems are suitable to upgrade with a green or blue roof or PV system.

Key Features and Benefits

- Heavy duty, robust, durable, substantial life expectancy.
- Fire classification Broof t4.
- Reinforced modified bitumen membranes.
- Torch-safe detailing methods.
- BBA certified and deemed 'unrestricted' and suitable for use on any part of a roof.
- Range of insulations for warm and inverted construction.
- Ability to withstand climatic extremes.
- Choice of cap sheet colours.
- EPD certification.
- Outstanding range of guarantees to suit requirements.

The Systems

We provide the complete package of accessories to accompany all our systems.

Bauder Total Roof System PLUS

Our premium waterproofing system, utilising the latest manufacturing technology for the dual formulation BauderKARAT capping sheet and BauderTEC KSA DUO 35 self-adhesive underlay for a formidable waterproofing solution with exceptional durability and system longevity. Ideal for warm roof projects when longest life-span is required. Life expectancy ca. 40 years

Bauder Total Roof System (BTRS) and Bauder Total Green Roof System (BTGRS)

This high quality system offers a choice of products that enable it to be tailored to meet the needs of each individual project. There is the option of using a root resistant cap sheet, making this waterproofing system suitable for green roof situations, BTGRS. Both systems can be upgraded with the addition of a solar PV or BioSOLAR system. BBA stated life expectancy in excess of 35 years.

Bauderflex

This system offers a commercial alternative to BTRS, for the specifier on a prudent budget. There is a choice of products to meet the needs of each individual project, and has a BBA stated life expectancy in excess of 25 years.

Airtech

When safety is paramount, this torch-free system uses a combination of the latest generation self-adhesive membranes, superior adhesives and hot air welding. The system has a life expectancy in excess of 30 years.

SINGLE PLY SYSTEMS

Cost-effective, fast-track, lightweight waterproofing











A single ply system provides many advantages to the modern building, particularly if weight and load bearing limits are an important consideration.

Our proven to perform systems suit all dimensions and shapes of flat roof, offer different advantages, and provide solutions to many projects.

The systems are installed using hot air welding techniques with mechanical fastenings or adhesive bonding to provide solutions that are durable and resilient to the natural elements.

When to Specify

A key advantage of a single ply roofing system is the lightweight nature of the waterproofing and exceptionally quick installation times. Our systems can be used with extensive green roofs and Thermofol PVC can easily host our solar PV system.

Key Features and Benefits

- Flexible and resilient with substantial life expectancy.
- Fire classification Broof t4.
- Mechanically fixed or adhered system options with hot air welded membrane laps and detailing.
- Resistant to natural elements and UV irradiation.
- BBA certified and deemed 'unrestricted' and suitable for use on any part of a roof.
- Range of insulations for warm roof and inverted construction.
- Choice of membrane colours.
- EPD certification.
- Outstanding range of guarantees to suit project requirements.

The Systems

We provide the complete package of accessories to accompany both types of systems.

Bauder Thermofol PVC

Our Thermofol membrane formulation of high grade virgin polymer and superior fire retardants ensures optimum membrane characteristics to deliver high performance and a cold bending flexibility at less than -30°. BBA stated life expectancy in excess of 35 years.

With over 50 years of technical and production experience of PVC membranes, this system has a proven track record.

Bauder Thermoplan FPO

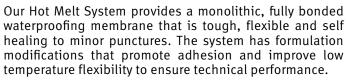
Thermoplan is a flexible polyolefin (FPO) single ply membrane that is long lasting and represents a major advancement in synthetic waterproofing technology.

The BBA certificate states that the products should have a life expectancy in excess of 20 years, however, we are confident that with correct installation and maintenance, the life expectancy will be at least 30 years.

HOT MELT SYSTEM

Robust, flexible, monolithic waterproofing





The BBA certificate relating to this system states that when fully protected and subjected to normal service conditions, it will provide an effective barrier to water and water vapour for the design life of the roof in which it is incorporated.

When to Specify

The Bauder Hot Melt Structural Waterproofing System is ideally suited as a waterproofing system beneath paved or ballasted surfacing, car parks, podiums, plazas, green roofs and substructures.

This waterproofing solution can also be specified with the BauderBLUE Roof System or the Bauder BioSOLAR green roof PV system.

Our Hot Melt System meets current UK Building Regulations Part B for fire protection as it is specified within an inverted construction.

Key Features and Benefits

- Seamless application provides monolithic waterproofing.
- BBA stated life expectancy to match the design life of the roof.
- Can be installed on zero falls.
- Bridges minor cracks and infills minor irregularities.
- Full adhesion to deck restricts lateral water movement.
- BBA Certificate 06/4350.
- Fire performance is deemed to be 'unrestricted' under national requirements and suitable for use anywhere on a roof because is protected by the roof finish.
- Guaranteed system.









COLD LIQUID APPLIED SYSTEMS

Fast curing and long lasting waterproofing for roofs, balconies and terraces











Our cold liquid applied systems are based on the most advanced PMMA resin technology. This combines ease of application without using hot works, exceptionally fast cure, and durability, to provide a cold liquid applied waterproofing product second to none.

When to Specify

The Bauder LiquiTEC Systems are suited for all kinds of flat roof, balcony, walkway and terrace waterproofing and surfacing applications and ideal for difficult and complex areas where membrane systems would be impractical due to a high degree of detailing, or when access to install waterproofing is restricted.

Key Features and Benefits

- Totally cold applied, thick layer system.
- Fire classification Brooft4.
- Installation possible at very low temperatures.
- Choice of finish colours.
- Exceptionally fast curing for short trafficking times.
- Compatible with a wide range of substrates.
- Seamless no joints or fixings.
- BBA certified.
- Range of guarantees to suit project requirements.

The Systems

We provide the complete package of accessories to accompany both types of systems.

Bauder LiquiTEC Roof System

This polyester reinforced system can be applied to a wide variety of substrates including concrete and timber decks. The roof area can be accessed within hours of installation and it delivers a UV stable, seamless waterproof membrane of the highest quality.

The system can be configured for a cold or warm roof construction and is fully reinforced with a tough polyester fleece for increased membrane strength, life expectancy and resistance to cracking. Within the insulated solution, our self-adhesive KSD DUO elastomeric bitumen membrane is used as both an air and vapour control layer and as the carrier membrane on which the LiquiTEC products are applied.

The BBA certificate relating to this system states that under normal service conditions it will have a service life in excess of 25 years.

Bauder LiquiTEC Balcony, Walkway and Terrace System

This system provides the optimum combination of aesthetic and functional requirements.

Designed to be slip resistant and hard wearing it can also be used for stairs and stairwells.

The BBA certificate states that under normal service conditions it will have a service life in excess of 15 years.

GREEN ROOFS

Creating green spaces for wildlife and people





When to Specify

Green roofs have far reaching benefits for the environment, the building and the occupants and can be required for planning consent, BREEAM and meeting biodiversity net gain (BNG). They can also create recreational amenity space and improve the useable environment and value of the building.

Key Features and Benefits

- Aid to planning consent, gain BREEAM credits, and to meet legislation.
- Deliver biodiversity and a natural habitat for flora and fauna
- Aesthetic appearance and masking the building.
- Environmental benefits.
- Drainage and substrate layers help to retain rainwater and reduce run-off.
- Substantial variety of hard and soft landscape finishes from lightweight sedum blanket solutions through to intensive recreational gardens.
- FLL approved solutions.
- XF301 sedum blanket holds fire classification BROOF t4 and is verified by the BBA as 'unrestricted' and suitable for use on any part of a roof in conjunction with Bauder Total Green Roof System.
- Range of guarantees, maintenance agreements and green roof promise to suit system specified.







The Systems

We provide the complete package for the waterproofing system and associated landscaping components for all types of green roofs.

Intensive Green Roofs

Rooftops and podiums where the design may include flowerbeds, lawns, shrubs and trees intermixed with paths, driveways and patios. The combinations of finishes will impact on the design, construction, drainage and components used to deliver to each element's requirements. Suitable for BTGRS and hot melt systems.

Substrate Extensive Green Roofs

Designed to be comparatively lightweight, work towards providing some storm water attenuation and support a wide variety of 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 of seed blends to suit particular locations.
- inclusion of a BioSOLAR PV array with seeded vegetation.

Sedum System Extensive Green Roof

All in one system comprising mature sedum species pregrown on an integrated blanket with 20mm of extensive substrate. The system has been developed for use directly over our waterproofing.

BLUE ROOFS

Sustainable urban drainage for flat or podium roofs







The BauderBLUE Roof System is a sustainable drainage method designed to attenuate and manage stormwater on a flat roof over a 24-hour period via a restrictive flow outlet.

In measures to prevent flooding, planners are restricting the amount of rainwater leaving a site via the drainage system which can be limited to 5-10 litres per second per hectare, the same flow rates for regional greenfield sites, and so a SuDS solution is required.

BauderBLUE can be constructed at either rooftop or podium level with the void space between the flat roof waterproofing membrane and hard or soft landscaping finish allowing the stormwater to attenuate.

When to Specify

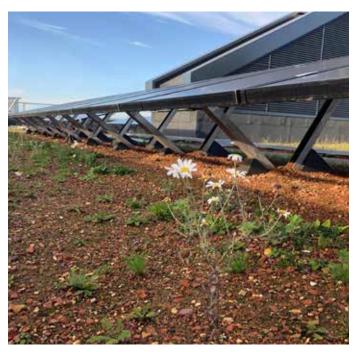
This rooftop solution is specified where construction is being carried out in urban areas and particularly within flood sensitive areas where options for ground-based attenuation systems are limited. Suitable for BTGRS and hot melt systems.

This rooftop sustainable urban drainage system (SuDS) has weight load implications and the project's structural engineer will need to be engaged with the design process from an early stage.

Bauder Infograph Video



To view the entire animation: https://www.bauder.co.uk/blue-roofs



Key Features and Benefits

- Simple low maintenance design.
- Bespoke, project specific discharge rates to match the requirement of the SuDS report for the site.
- Can be created on zero falls or up to 1:40 pitch.
- Correct volume and weight of water storage with built in overflow to ensure the maximum water level (HMax is never exceeded and a tell-tale parapet overflow is utilised to visibly identify if water levels rise close to the HMax).
- Designed to work in conjunction with the Bauder Total Green Roof System and Bauder Hot Melt System.
- Fully quaranteed system.

The System

The specifically engineered Bauder outlet restricts the discharge of stormwater to a calculated and predesigned flow rate to significantly slow down the volume of water leaving the site. As the storm passes, water continues to discharge from the roof at a controlled rate over a 24-hour period that helps to avoid downstream or localised flooding.

The water is attenuated within a void space that requires free-flowing water movement to the specifically engineered outlets.

SOLAR PV

Rooftop renewable energy generation











A flat roof is the ideal place for a solar PV installation as it provides an unobstructed space that is perfectly positioned to catch as much sunlight as possible.

The installation mechanisms for both our solar PV solutions ensure the waterproofing system beneath remains completely intact and without compromise, which can occur when mechanical fixing methods are used that penetrate the roof.

When to Specify

Our photovoltaic solutions are specifically designed to deliver the most efficient energy generation solution on flat and green roofs.

Key Features and Benefits

- Risk free installation with no penetrating fixings to ensure waterproofing integrity.
- Maximises the roof area and with BioSOLAR the entire roof can qualify as a biodiverse green roof.
- Single source for integrated design and guarantee responsibility for the waterproofing and PV installation, and green roof in BioSOLAR systems.
- Lightweight, with BauderSOLAR weighing 9 12.5 Kg/m², depending on client module choice.
- Easy to maintain.
- Guarantee covers all elements of the Bauder installation.

The Systems

We provide the complete package for waterproofing and any associated landscaping components for both of our solar PV systems.

BauderSOLAR PV System for Flat Roofs

The BauderSOLAR photovoltaic solution combines the solar PV module and the substructure to form a single unit, which is secured to the roof without any penetration of the waterproofing or roof deck. This ensures that the integrity of the roof is upheld throughout the installation of the PV array. The system is designed to be used in conjunction with Bauder single ply or bituminous systems and is extremely lightweight at 9-12.5 Kg/m², depending on PV panels selected.

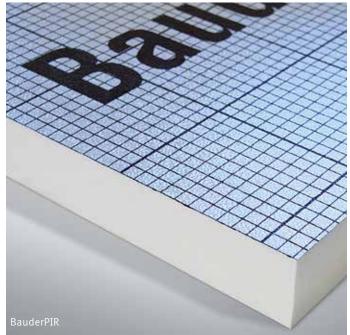
Bauder BioSOLAR for Green and Blue Roofs

This integrated mounting solution combines with a green roof where the substrate and vegetation provide the ballasted installation mechanism, which removes the need for penetrating the waterproofing to secure the mounting units to the roof.

The front edge of the PV panel is set at around 300mm above the level of the substrate, which allows liberal growing room for the extensive vegetation without blocking light to the solar cells that would otherwise reduce the efficiency of the panels. This height setting also enables light and moisture to reach beneath the panel to support the plants below.

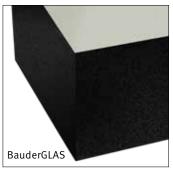
INSULATING A FLAT ROOF

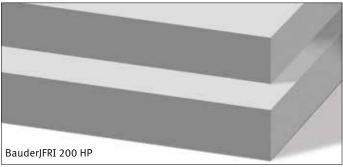
Rigid board insulation for warm and inverted constructions











Improved thermal efficiency has positive effects on the environment through reduced energy usage. There are different options with their own benefits depending on the roof type you are constructing.

Bauder Warm Roof Insulation

Our range of insulations are encapsulated by the waterproofing membranes and conform to Building Regulations in the same way.

BauderPIR is both strong and inert and has a high compressive strength making it suitable for all kinds of load bearing decks. It is available as flatboard or as a tapered scheme to provide a cost-effective method of designing falls on a roof.

BauderVIP is a vacuum insulation panel designed to provide exceptional thermal performance in areas with limited installation height and is ideally suited for roof terrace applications.

BauderROCK is our mineral fibre insulation with remarkable acoustic and fire resistance properties. The insulant is considerably heavier than PIR. Suitable for flat roofs and tapered design schemes.

BauderGLAS is a non-combustible, vapour and watertight, cellular glass flatboard and tapered insulation that gives high compressive performance and fire resistance.

Fire performance of warm roof insulations

Bauder insulations within a warm roof construction all achieve the fire rating pertinent to the waterproofing system. BauderPIR, BauderROCK and BauderGLAS are protected by the cap sheet, and not exposed. As such it is the cap sheet that has to perform against external fire exposure.

Bauder Inverted Roof Insulation

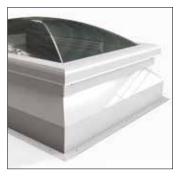
Our Expanded Polystyrene and Extruded Polystyrene inverted roof insulations are designed to sit on top of our waterproofing systems. The insulation is always ballasted to stabilise it against wind uplift and flotation which can comprise items such as pebbles, paving or a green roof.

Fire performance of inverted insulations

Bauder inverted insulation is specified in buried scenarios and are fully covered with paving slabs etc and meet current Building Regulations without testing, with the exception of being used in the construction of a 'Specified Attachment'.

COMPLETING THE ROOF PACKAGE

Rooflights and insulated outlets





Rooflights

We can satisfy all your rooftop glazing requirements, from standard modular units to specialist structural glazing and can fully advise and guide you in the selection of suitable rooflights.

Key Features and Benefits

- Manufactured to comply with current Building Regulations and Health & Safety requirements.
- Fully compatible with our roof waterproofing systems.
- Fire performance BS476 Part 7 Class 1.
- Ventilation options.
- Comprehensive guarantee.

The Options

Bauder Euroglaze – superior modular rooflights designed to provide high standards of illumination, insulation and ventilation.

BauderDOME – this standard range of modular rooflights provides a simple but effective solution to the requirement for daylight and ventilation.

Bauder Special Modular Rooflights – We can fulfil any special modular requirement, including circular and glass rooflights.

Continuous Rooflights – triple glazed as standard and available in a width of up to 2.4m to provide an excellent source of natural daylight for any project.

Walk-On Rooflights – allow and support foot traffic on roof terraces and gardens and ground floor areas over basement rooms whilst providing natural daylight to the rooms below.

Modular Link Glazing – is a custom built, aluminium framed panel glazing system, manufactured for the roof and building design.

Structural Rooflights – bespoke structural glazing installations allow designers and architects complete freedom when incorporating natural daylight to a roofing project.

Automatic Opening Vents – dedicated outlet for the removal of smoke from a building and forms part of the fire protection system.



Insulated Rainwater Outlets

Our outlets offer thermal continuity at drainage points and the BRE Certified high thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body.

Key Features and Benefits

- Ideal for all types of roof construction.
- Robust, durable, shock and impact-proof.
- Fully compatible with our roof waterproofing systems.
- High capacity and low noise drainage.
- Included within our comprehensive waterproofing system guarantees.

The Options

Our insulated outlets are available for vertical gravity flow, parapets with a through chute to an external hopper, and tell-tale overflow.

Bitumen Membrane Outlets – compact outlets and extension units to provide a two-part system for all thicknesses of build-up and insulation.

Single Ply Outlets – specific outlets for both PVC and FPO systems to allow for compatible welding of the membrane to the outlet.

Hot Melt Outlets – with an integrated clamping ring and neoprene gasket to ensure a mechanical hold between the waterproofing and the outlet.

Blue Roof Outlet Flow Restrictors – specifically designed for each project with a defined number of restrictive flow holes bespoke to the SuDS calculation for permitted discharge rate for the site.

NEW BUILD PROJECT SERVICE

Supporting you in the design of a new roof



For new build projects, any of our range of waterproofing systems can be used, with some systems lending themselves to a particular project depending on the design durability, cost and life expectancy.

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 all project stakeholders.



- 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.



TO YOU DELIVERS

Recommended waterproofing system for the building.

OUR SERVICE

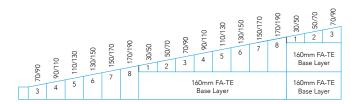
- Full design service for green roof, blue roof or solar PV with yield analysis.
- BIM objects.
- Comprehensive detailed specification.
- Thermal analysis and condensation risk calculations.
- Falls and drainage design.
- Wind load and restraint calculations.
- Detail drawings on all roof penetrations, 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.
- Recommended approved contractors.

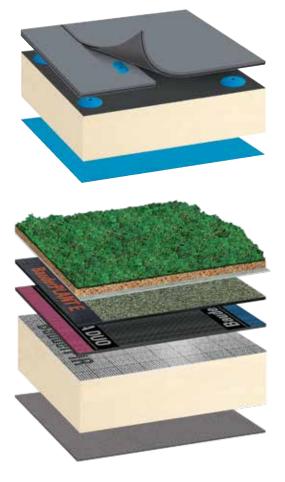
Our technical managers are based nationwide and play a vital role in the success of every new build project from conceptual stage through to hand-over and sign-off of the Bauder installation.

TECHNICAL SUPPORT

Specialised information for all your projects







As part of our service we can assist you with the design of the detailing, writing of the specification for the proposed waterproofing options and recommend suitable approved contractors with fully trained installers to tender for the project. The service is without charge and we work with you on a one-to-one basis to ensure that your roof specification meets all your needs and that of the building.

Roof Design

Flat roofs can be perceived as simplistic in both their appearance and design, 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. Our technical department is highly proficient at interpreting multifaceted or complex designs to create bespoke details for all our waterproofing systems.

BIM Object and Specification Creation

We will create a totally bespoke detailed roof specification and BIM object for all of the proposed roofing works on your project and work closely with you to ensure it is the right solution for you and your client.

Technical Calculations

We will provide you with all the technical calculations and detail drawings you need as part of your specification package including:

- Weight loading of the system.
- U-value and thermal bridging.
- Condensation risk analysis in accordance with BS 5250.
- Wind Load calculations and design.
- Acoustic performance using BauderROCK or hybrid arrangement with the inclusion of PIR insulation to help reduce the height and weight of the completed roof construction.
- Drainage calculations based on BS EN 12056.

Tapered Scheme Design Service

Our technical department will design the bespoke tapered insulation scheme in accordance with the latest building standards; BS 6229:2018 for falls on flat roof surfaces, and BS 5250 for control of condensation in a building. This team can also provide bespoke U-value calculations in accordance with BS 6946 Annex E (Calculation method) to confirm the thickness required and/or U-value achieved and will also provide a layout design service to aid installation on site.

Safe Access

All flat roofs will have a requirement for a certain amount of pedestrian access, whether this is for maintenance of the roof and any rooftop plant or as a fire escape route. It is therefore necessary to design any flat roof to allow for safe access and our technical team will create the waterproofing details to accommodate the desired edge protection, mansafe system, and non-fragile rooflights.

GUARANTEED QUALITY

Delivering a first rate roof



Our Installations

You can be assured that whatever work is performed on your building's roof it will be of the highest quality, as we only allow fully trained and certified Bauder approved contractors to install our roofing systems.

Our national network of approved contractors are given all the training, support and expert advice they need in order to deliver a high quality roof installation that we are proud to put our name to. Every operative installing our systems receives individual application tuition, both in-house and on-site, and following successful assessment is issued with an identity badge providing proof of competence. We also provide refresher training as and when product or method improvements occur.

Installation Monitoring

Once your roofing works commence, our experienced team of site technicians will monitor and inspect the workmanship at key stages to ensure that the standards required to meet our guarantee are fulfilled, as well as creating concise reports on how the works are progressing.

Our site technician team provides national coverage ensuring all our sites receive the attention they deserve. The team support installers with practical and specialist technical knowledge. Whether it is helping to resolve installation or detailing challenges they are available to help and provide guidance.



Bauder Guarantee Packages

Your completed roof will be backed up by what we can confidently claim to be the most comprehensive guarantee range in today's roofing industry, giving you total reassurance with regards to the future performance of your roof.

Unlike others in the market, Bauder offers a full range of guarantees that match the building's and your requirements to give complete satisfaction. We issue our guarantees as part of our service because we monitor quality every step of the way from manufacture to installation.

A credible guarantee is vital; but never needing to call upon it is our aim.

Guarantee Cover Options

- Products supplied by Bauder.
- Workmanship of Bauder products installed by our approved contractors.
- Defective design and / or specification where Bauder products are concerned.
- Financial loss from building damage due to faulty manufacture or installation of Bauder products.
- Consequential damage through Bauder waterproofing system failure due to faulty manufacture or installation of Bauder products.



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