



NEW BUILD

For all your waterproofing needs



www.alumascroofing.com

Your Complete Roofing Solution

Environmentally Focussed | Responsibly Sourced | Ethically Driven

WELCOME TO ALUMASC ROOFING

Thank you for taking the time to visit us!

We want to share with you a little bit about us, our product solutions, and the service we personalise to you.

We are a trusted supplier of waterproofing and sustainable roof solutions, offering a full range of building protection products from a single source for the New Build flat roofing market.

Our team of knowledgeable like-minded people will work with you to specify the most suitable solution for the unique needs of your project and will be there throughout the design and construction process.

Our aim is to provide quality sustainable building solutions which give long-term peace of mind, supported by our technical expertise and comprehensive range of single source warranty options.

We are committed to continual development and, along with ISO14001 Environmental Management Standard, ISO9001 provides the tools to monitor and feedback information from all areas of the business to ensure you get a first-class service.

If you wish to hear more about our solutions and how we are working towards a better future, then please do not hesitate to get in touch with us at **info@alumascroofing.com**

Thank you again for your time.

Your Complete Roofing Solution

Environmentally Focussed | Responsibly Sourced | Ethically Driven



Proud to have received London Stock Exchange's Green Economy Mark



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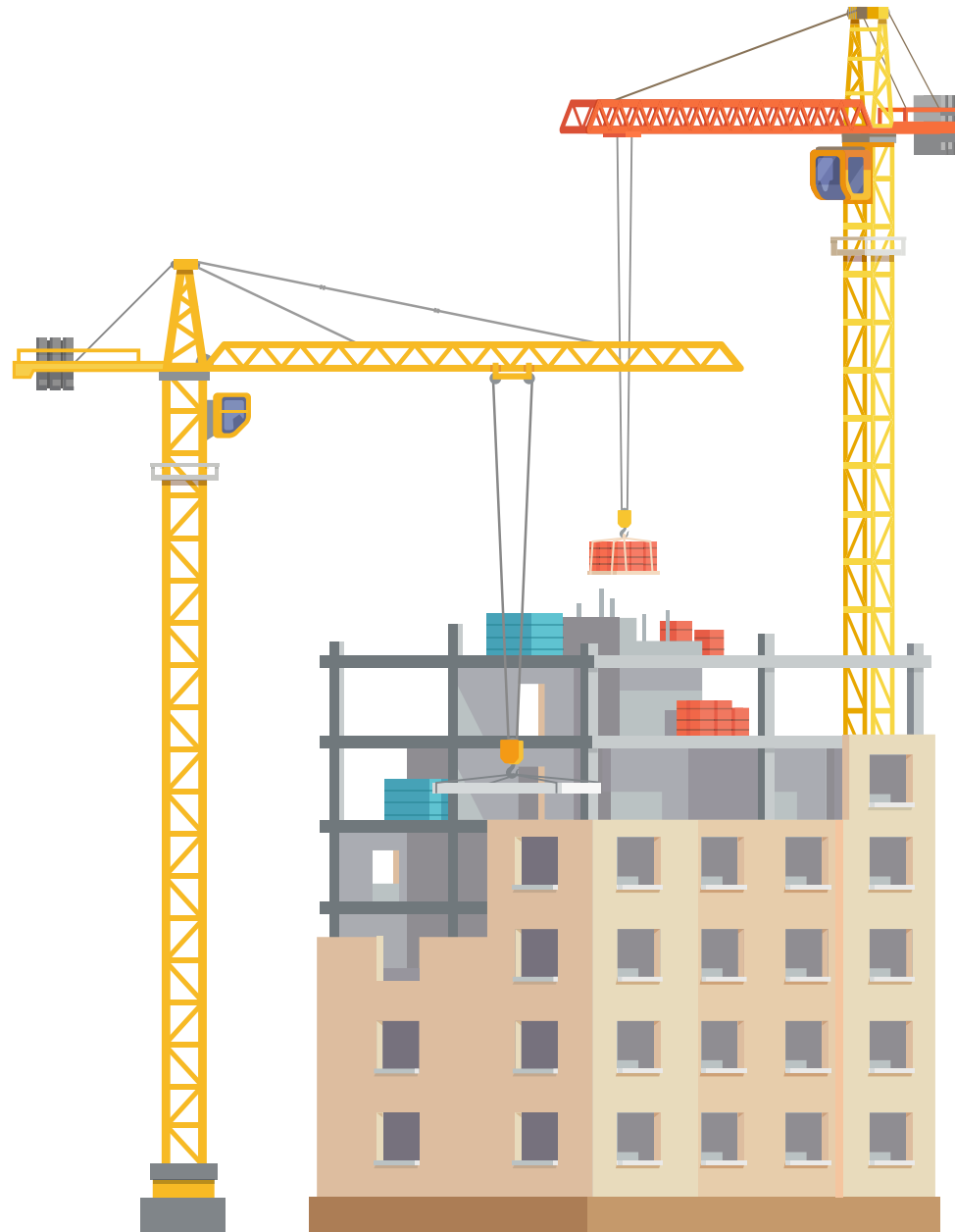
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OUR REASON FOR EXISTENCE

‘To deliver long lasting roofing solutions, that consider our planet’



WHAT WE BELIEVE

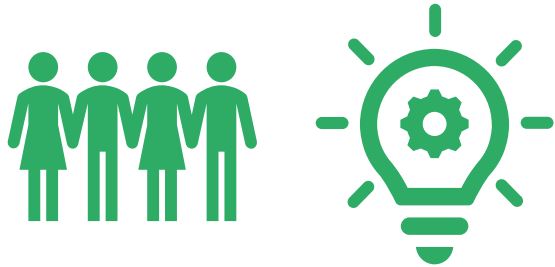
We stand for protect, preserve and respect in all that we do.

Be that for our people, our products, or the world we live in - to secure a prospering future for all.

We don't just think of the here and now - we consider how we can make a positive difference to the world that follows us, by working with like-minded people who share the same beliefs that we do.

WHAT MAKES US GREAT TO WORK WITH?

OUR PEOPLE



Like-minded individuals, with knowledge that spans a (roofs) lifetime.

We don't just have lots of knowledge - we are also really nice, honest people who will only offer what's right for you, and we don't switch off our phones or hide away when the going gets tough.

If you don't get an 'out of office' then rest assured, one of us will get back to you the same working day.

OUR SERVICE

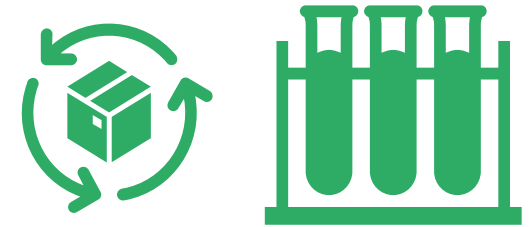


With solutions that give a lifetime of protection, there's no problem that can't be resolved.

We are so confident about the durability and efficiency of our materials, that our warranties are amongst the best available.

Couple that with sound knowledgeable advice, bespoke reporting and technical support excellence, what more could you possibly want?

OUR SOLUTIONS



Some of the most durable roofing materials you will find - tested in-situ, not just in the laboratory.

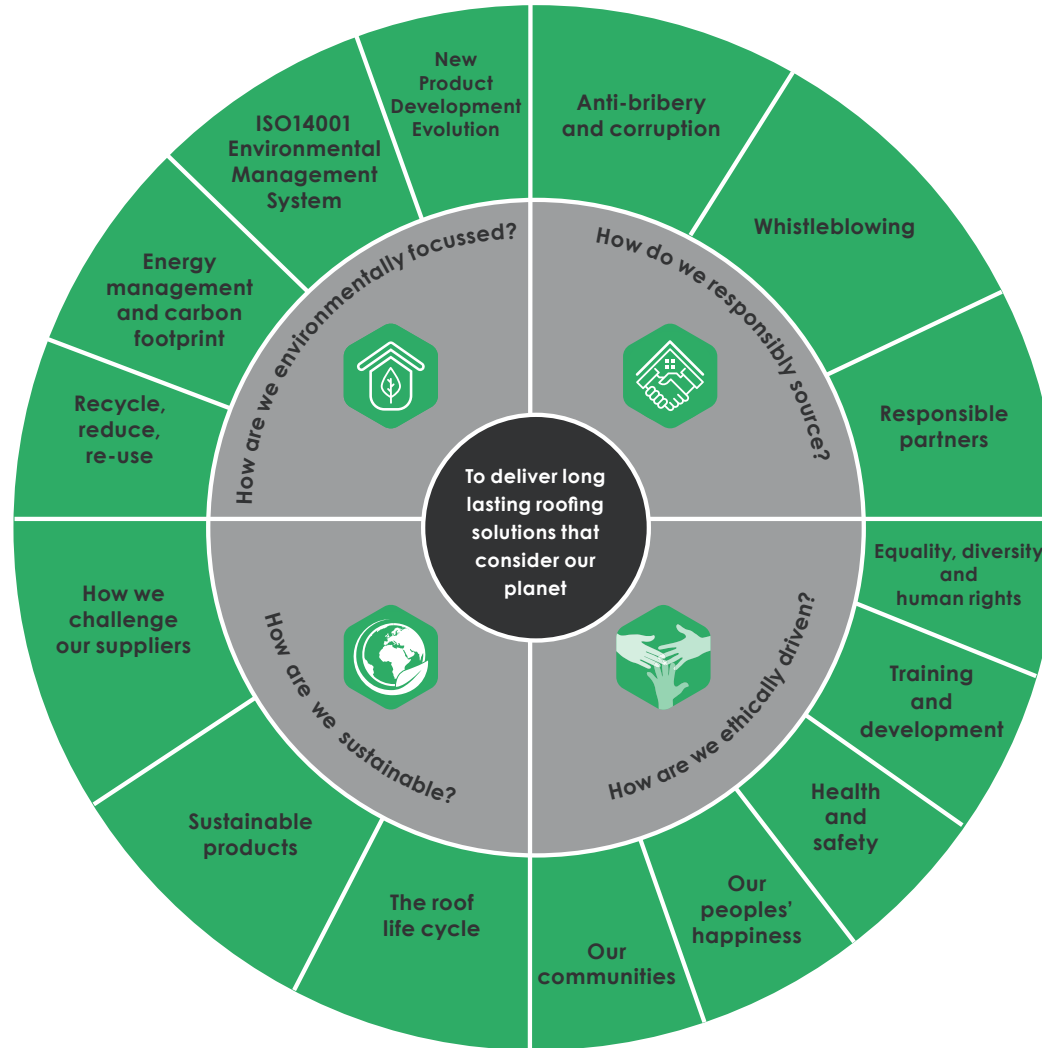
We focus on durability, longevity and the roof life cycle of our offer. Products with lifespans ranging from 20 years right up to the design life of the structure reduce carbon emissions and assist in achieving sustainability targets.

Our company policy is one of continuous research and development to further enhance levels of sustainability.

'Alumasc Roofing is the name above our door, but it's our people that make us who we are'

OUR COMMITMENT TO A PROSPERING FUTURE

Our strap line is not just a statement we make. It is the pillars we live, breathe and consider every day in our operations to ensure we give as much as we can back to the future that follows us.



‘Working responsibly to reciprocally contribute to our planet’

WHY ALUMASC?

Alumasc is a leading provider of exceptional products and solutions for new build projects. We have a wealth of experience in dealing with key clients and customers across all building sectors to deliver a quality service from pre-planning through to completion.

Our primary objective is to mitigate the client's risk, by providing:



The Right System Choice

With our varied and extensive range of products, we can always meet your project's needs with an appropriate solution.



Efficiently Designed

We will assist through all design stages, by collaborating with the relevant parties to meet your project's requirements and support you throughout with our comprehensive technical advice.



Correctly Installed

Our trained contractors are experienced in our installations and are monitored continually by Alumasc Site Technicians for your peace of mind.



Warranties

A comprehensive range of single-source warranties are available for up to 40 years (depending on the solution) covering the product, workmanship, and design.



Post-Project Handover

For all you need to know about your roof and its installation.



Aftersales Support Service

Should you need us to support you in the future.

As part of our service, a technical manager will be appointed to your project who will be your primary point of contact, reviewing each delivery and coordinating all the internal resources your project needs. You will be regularly updated on progress and supported throughout the entire project by your dedicated contact.

Our portfolio includes a premium range of reinforced polymer modified bituminous waterproofing membranes, single-ply membranes, hot-melt structural waterproofing, cold applied liquid coatings, green roof solutions, stormwater management and a full range of complementary accessories such as building services supports and guardrail edge protection systems.

OUR PRODUCT SOLUTIONS



CONTACT US:

For Specifications, Technical, Project
Quotations, Customer Service and Sales Orders



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BUILDING ENVELOPE

The Single Source External Building Product Solution

Alumasc Group comprises three divisions:

- ✓ **Alumasc Building Envelope**
- ✓ **Water Management**
- ✓ **Housebuilding**

The multi-disciplinary nature of the Alumasc Building Envelope Division allows us to work together across our businesses combining our knowledge and joined-up thinking to create solutions spanning across the external fabric, waterproofing and drainage of the building envelope.

We work tirelessly to ensure that the solutions we propose will reduce building envelope risk. This approach can significantly assist Project Managers, Architects, and Design Managers as our involvement can be as early as design stage 2, tender process, subcontract tender and project delivery.

Through our range of experience, each business within the Building Envelope Division provides one of the most comprehensive levels of technical and service support in the UK:

Alumasc Roofing

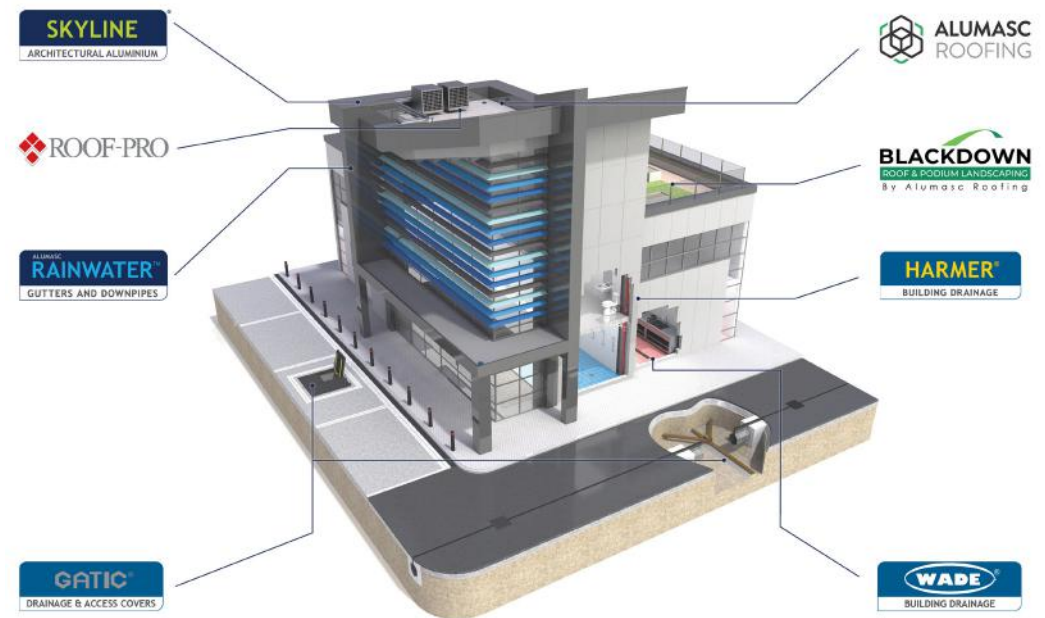
Leading supplier of High-Performance Waterproofing Solutions

Blackdown Roof & Podium Landscaping

Specialists in Supply, Installation and Maintenance of Green Roofs

Roof-Pro

Specialists in Rooftop Management Systems



Alumasc Water Management comprises of:

Alumasc Rainwater Gutters and Downpipes

Market leader in aluminium, cast iron and steel gutters and downpipes

Harmer and Wade Building Drainage

Specialists in the management of water inside and outside the building

Skyline

Leading manufacturer in aluminium fascia's, soffits, and copings

Gatic

Specialists in surface water management and access covers

OUR ROOFING SOLUTIONS

There are many different types of waterproofing assembly including warm, inverted roofs and buried applications. To select the right solution all relevant design criteria must be first considered e.g. its durability, energy efficiency, aesthetics, access, environmental, loading, fire performance, water management/SuDS, warranty, and safety. We offer an extensive range of systems to ensure we can provide the correct solution for your needs.

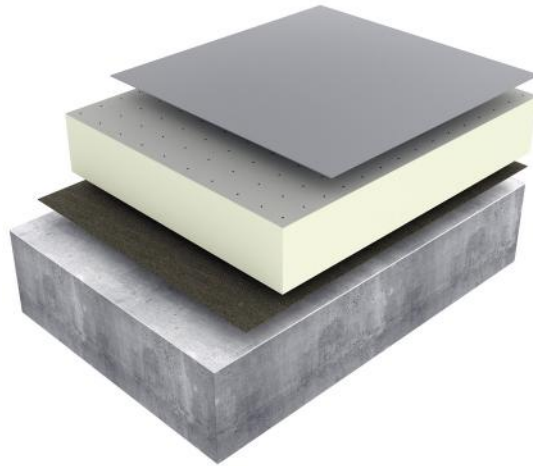
For Warm Roofs



Reinforced Bitumen Membranes

Our Derbigum and EurorooF Systems comprise a premium range of reinforced polymer modified bituminous waterproofing membranes. They are available in a variety of combinations and installation methods.

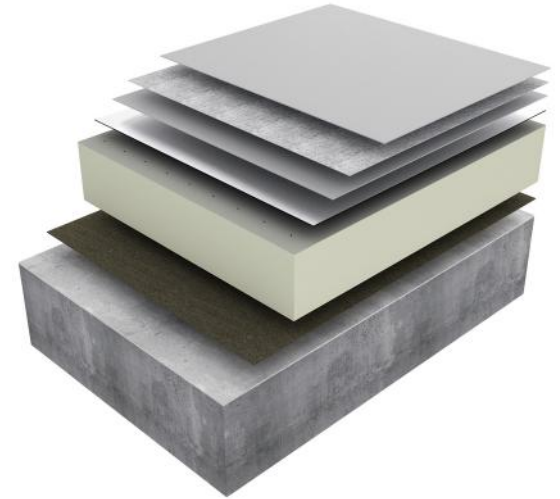
- ✓ Flexibility of product specification
- ✓ Robust, proven durability
- ✓ Systems available to receive landscaping
- ✓ Life expectancy of at least 40 years
- ✓ BBA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 35 years



Single-Ply Membranes

Alkorplan by Alumasc comprises a range of multi-layered reinforced thermoplastic 1.5mm PVC-P roofing membranes. Fleece-backed membrane for bonded applications and unbacked for mechanical fastening.

- ✓ Lightweight, flexible, cost effective
- ✓ Speed of installation
- ✓ Life expectancy in excess of 40 years
- ✓ BBA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 20 years



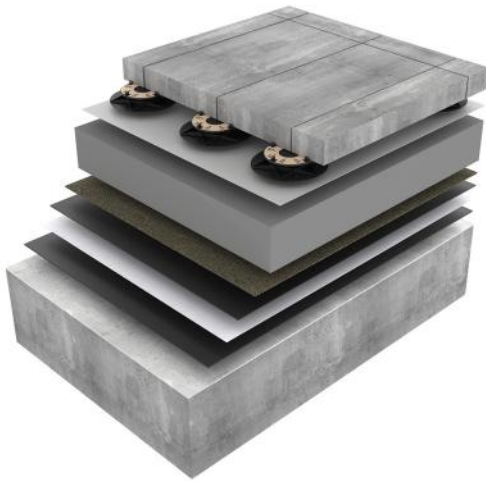
Cold-Applied Liquid Coatings

Our fully reinforced Caltech systems are split into three product types. A single-component moisture curing polyurethane, and rapid curing two-component systems based on a hybrid polymer formulation, and PMMA technology.

- ✓ Cold applied, seamless
- ✓ Smooth finish, multiple options available
- ✓ Ability to form complex detailing with ease
- ✓ Life expectancy in excess of 25 years
- ✓ BBA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 25 years

OUR ROOFING SOLUTIONS

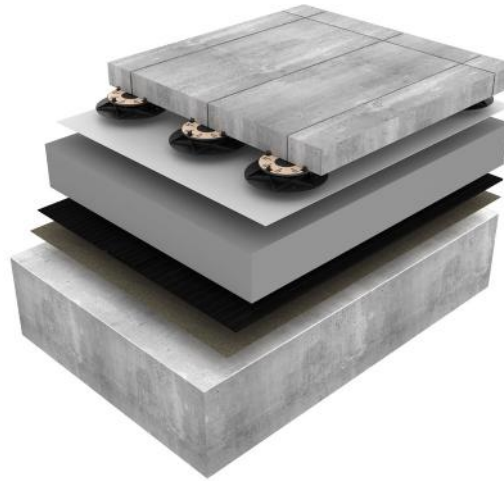
For Inverted Roofs to include soft and hard landscaping



Hot-Melt Waterproofing

Hydrotech 6125 - the original hot applied, fully reinforced, self-healing hot-melt monolithic membrane combined with a polyester reinforcement and bituminous protection sheet (root resistant options available).

- ✓ Thermoplastic - one part, 100% solids
- ✓ Completely monolithic, no seams
- ✓ Contains 40% recycled content
- ✓ Dynamic crack bridging certified
- ✓ Can be used to designed zero falls
- ✓ Facilitates phased construction
- ✓ Accommodates structural movement
- ✓ Durability - service life of the roof
- ✓ BBA and ETA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 40 years



Reinforced Bitumen Membrane

Derbigum Black - a premium 4mm APP polymer modified, dual reinforced, bituminous waterproofing membrane. Typically installed in conjunction with a torch-on or flame-free bituminous underlay.

- ✓ Dual glass fibre and polyester reinforcement
- ✓ Robust, proven durability
- ✓ Can be used to designed zero falls
- ✓ Root resistant option for green roofs
- ✓ Life expectancy in excess of 40 years
- ✓ BBA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 35 years



Cold-Applied Liquid Coatings

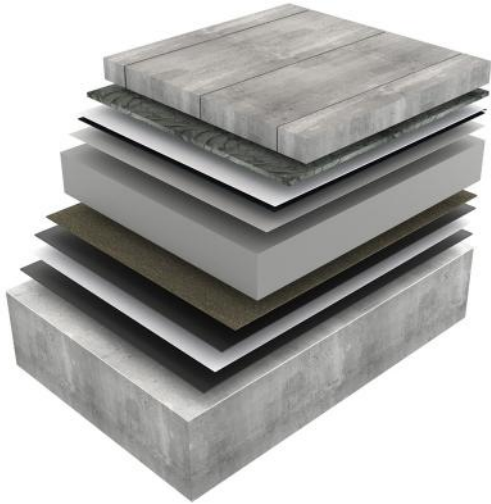
Caltech QC*, Caltech FCP - two-component, cold-applied, fully reinforced waterproofing systems based on a hybrid polymer formulation, and PMMA technology. Rapid cure times as low as 30 minutes offer quick installation.

- ✓ Cold applied, fast curing, quick installation
- ✓ *Single process application
- ✓ Ability to form complex detailing with ease
- ✓ *Self-terminating
- ✓ *Dynamic crack bridging certified
- ✓ Can be used to designed zero falls
- ✓ Root resistant
- ✓ Life expectancy in excess of 25 years
- ✓ BBA Certified
- ✓ Fire classification **B_{ROOF}(t4)**
- ✓ Warranty cover up to 20 years



OUR ROOFING SOLUTIONS

For Buried Application

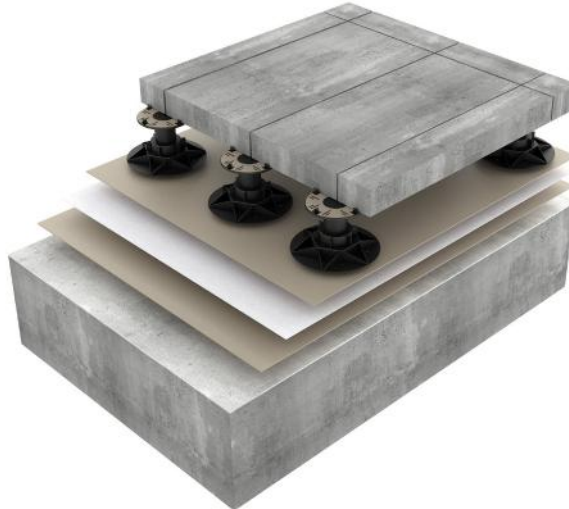


Podium and Plaza Decks

Podium and Plaza decks with multi-functional and sustainable requirements utilised for car parks, leisure, recreational and garden spaces requiring heavy-duty and durable solutions.

Our recommended waterproofing systems include Hydrotech 6125 hot-melt monolithic membrane, and Derbigum GC, a civils grade reinforced APP polymer modified bituminous membrane.

This assembly may also feature a composite drainage layer for enhancing water run-off below a permeable subbase for bedded paving, or in the case of green roof, a drainage element to retain water which will gradually diffuse up into the growing medium for uptake by the plants.



Balconies and Terraces

Usable spaces like balconies and roof terraces are subject to additional demands where surfacing above the waterproofing is also required as an extension to the living space.

Our recommended waterproofing systems include Hydrotech 6125 hot-melt monolithic membrane, Derbigum reinforced APP polymer modified bituminous membranes, Caltech FCP and Caltech QC cold-applied liquid coatings.

Where a self-finished product is required, Caltech QC Balcony Plus features a heavy-duty wearing surface above the waterproofing system to provide impact resistance to meet your aesthetic or safety requirements.



Green and Blue Roofs

Green and Blue Roofs require specialist bespoke engineered solutions – see Environmental and Sustainable Solutions section for further information.

Our recommended waterproofing systems include Hydrotech 6125 hot-melt monolithic membrane, Derbigum reinforced APP polymer modified bituminous membranes, Caltech FCP and Caltech QC cold-applied liquid coatings.



OUR ROOFING SOLUTIONS

Landscaping

Whether your requirement is one of durability, ecological gain, water management, or to create a communal space the range of materials that can be incorporated above today's waterproofing systems are almost limitless. By involving us at the design and planning stages of your project we can offer valuable expertise which could save you both time and money in selecting the right solution for specification.

Here are just a few examples of the options available:



Ballasted



Planters



Soft-surfacing



Paved



Non-accessible green roofs



Water features



Decking



Multi-functional urban spaces



Car parks

OUR TOTAL DESIGN SOLUTION

Issues can arise during project installation if certain details have not been designed, considered, or allowed for during the initial design process, or occasionally - if the wrong solution has been proposed entirely.

Our experienced technical team will work with you from the early stages of design to ensure we offer the right solution for your project needs, and not what is right for us. We do this by providing our 'Total Design Solution'.



NEEDS AND SOLUTIONS

Managing a buildings fire risk through regulation, design, and the selection of products for compliance is a primary design consideration. Fire performance is assessed using standard tests, including performance exposure to an external fire source and combustibility of component parts.

Fire Performance

It is a legal requirement for buildings to be designed to prevent the spread of fire from one building to another.

Approved Document B, requirement B4, offers practical advice on how to ensure compliance with the fire safety aspect of the latest Building Regulations, with emphasis on **B_{ROOF(t4)}** classification.

External Fire Performance test method for roofs is determined by **CEN/TS 1187 test 4** by exposure to burning brands, simulated winds and radiant heat, the results of which are used to give a classification rating in accordance with **BS EN 13501-5** from **B_{ROOF(t4)}** down to **F_{ROOF(t4)}**.

B_{ROOF(t4)} is the highest performing classification for a roof system, assessing the specimen's reaction when exposed to an external fire.

Alumasc waterproofing solutions have been rated **B_{ROOF(t4)}** classification for unrestricted use (or in Scotland 'low vulnerability') anywhere on the roof under the Building Regulations.

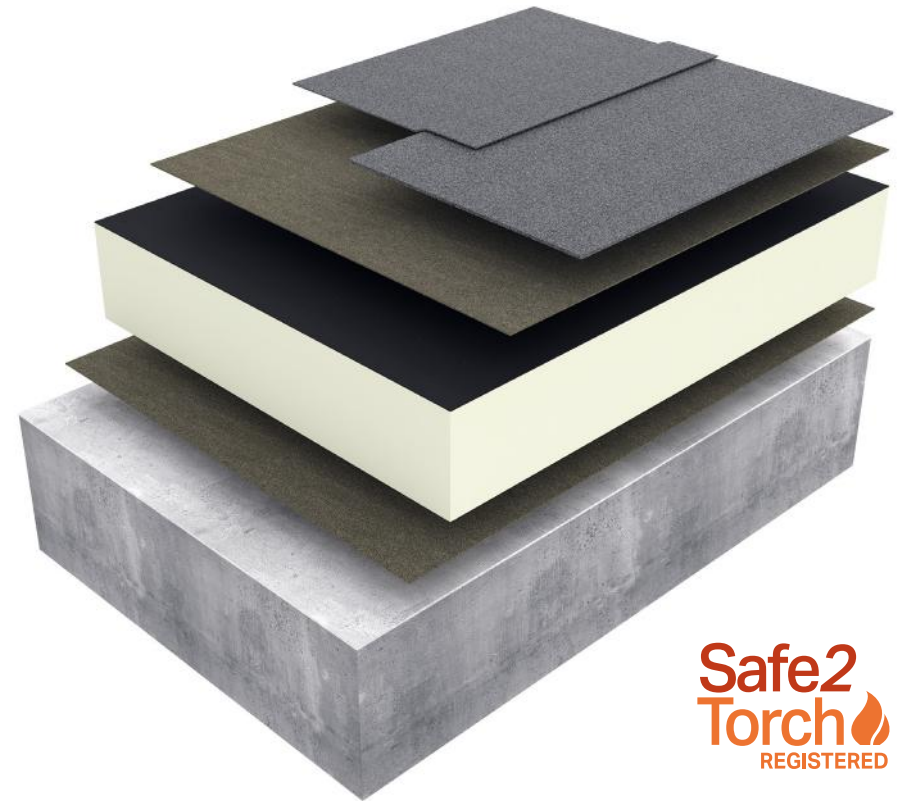
Insulations

NB. **B_{ROOF(t4)}** classification does not determine the individual reaction to fire of component parts found in **BS EN 13501-1**.

Our roof systems incorporating a combustible insulation product as low as Euroclass F will achieve a rating of **B_{ROOF(t4)}**.

Where specific fire conditions are to be met the use of a non-combustible material as defined by a **Euroclass rating** of **A1** and **A2** to **EN 13501-1** such as mineral wool or cellular glass are to be specified.

Warm Roofs



**Safe2
Torch**
REGISTERED

Recommended **B_{ROOF(t4)}** rated solutions

- ✓ Derbigum Reinforced Bitumen Membranes
- ✓ Eurorof Reinforced Bitumen Membranes
- ✓ Caltech Cold-Applied Liquid Coatings
- ✓ Alkorplan Single-Ply Membranes

NEEDS AND SOLUTIONS

Fire Performance

Protected roof specifications including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC such as concrete pavours at least 40mm in thickness, gravel/stone ballast at least 50mm in thickness and cementitious screed at least 30mm in thickness are deemed to satisfy the requirements for the characteristic “external fire performance **B_{Roof}(t4)**” without the need for testing and can be used without restriction as the surface cannot sustain combustion.

Alumasc has additionally conducted independent External Fire Performance tests to **CEN/TS 1187** purely as a discretionary exercise to demonstrate to our clients that **B_{Roof}(t4)** rating is achieved.

For green roofs, best practice guidance states that to comply with requirement B4 it is recommended that for all types of green roof the depth of the growing layer should be a minimum of 80mm, and the organic content should not exceed 50% (or less than 20% where there is no permanent irrigation).

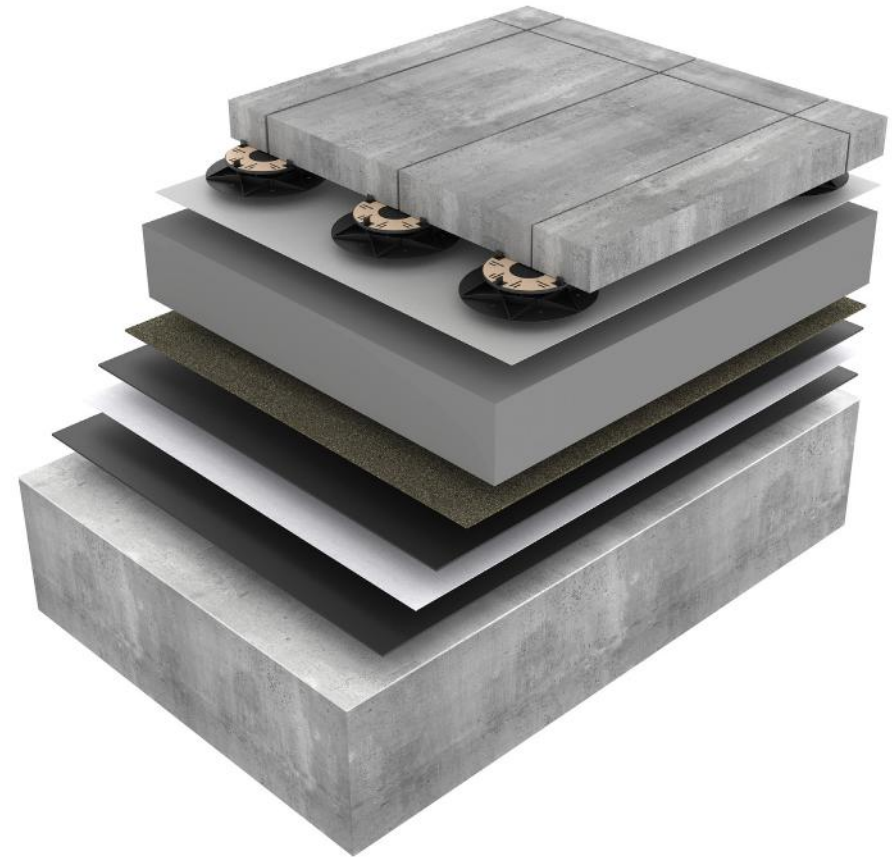
Firebreaks should be included around all perimeters to a minimum of 300mm wide and extended to 500mm where adjacent to opening rooflights and doors comprising of 20-40mm rounded pebble with a minimum thickness of 50mm, or paving slabs. A 1m wide fire break should be installed every 40m on larger roofs.

Insulations

The fire classification of insulation such as extruded polystyrene, typically the common choice for inverted roof design, has no bearing on the external classification when used in combination with the above as it entirely covered by a non-combustible finish preventing fire penetration and the spread of flame.

Where specific fire conditions are to be met, the use of a non-combustible material as defined by a **Euroclass rating of A1 and A2** is to be specified in the form of cellular glass.

Inverted Roofs



Recommended **B_{Roof}(t4)** rated solutions

- ✓ Hydrotech 6125 Hot-Melt Waterproofing
- ✓ Derbigum Reinforced Bitumen Membrane
- ✓ Caltech QC and Caltech FCP Cold-Applied Liquid Coatings

For further guidance on all other fire related requirements contact Alumasc Roofing Technical Services.

NEEDS AND SOLUTIONS

When materials receive A1 classification they are completely non-combustible, whilst A2 materials have very limited combustibility and are appended with the smoke emission and flaming droplets ratings for further context. Available non-combustible products include:

Insulations

Mineral wool - For warm roofs

Alumasc Multi-Fix Dual-Density (DD) Mineral Wool is manufactured from volcanic stone with a glass mineral fibre facing to receive all common waterproofing installation methods.

Excellent acoustic reduction, absorption, and impact (rain noise) performance are unique features of this product.

Reaction to **Fire Classification of A2-s1, d0 to EN 13501-1.**

Cellular glass - For warm roofs

Alumasc C-Glass insulation is manufactured using a minimum of 60% recycled glass and natural raw materials which are available in abundant supply. This range features product variations according to waterproofing type and method of application.

Reaction to **Fire Classification of A1 to EN 13501-1.**

Cellular glass - For inverted roofs

Alumasc C-Glass Inv insulation is manufactured using a minimum of 60% recycled glass and natural raw materials with a pre-applied inorganic coating on the top side. The insulation must be ballasted to prevent wind uplift and to provide protection to the WFR.

The flatness and the condition of the substrate are subject to special criteria when using this product due to its rigid form.

- Straight edge of 2m length the deviation should be less than 5mm.
- Straight edge of 0.6m length the deviation should be less than 3mm.

Reaction to **Fire Classification of A1 to EN 13501-1.**

Mineral wool upstand board - For inverted roof detailing

Alumasc Non-Combustible Upstand Board is a combination of two non-combustible products to provide both thermal performance and a weather-resistant solution for roof upstands and parapet walls.

Comprises of 50mm of dense mineral wool with a 6mm exterior grade fibre cement board.

Reaction to **Fire Classification of A2-s1, d0 to EN 13501-1.**

Paving/Decking Supports

Modulock Non-Combustible Pedestals are a fire rated **Euroclass A1** fully height adjustable support manufactured from steel. Suitable for all paving types, including natural stone, concrete, and non-combustible decking. Each pedestal is capable of supporting loads up to 4400kg.



- ✓ Perfect for terraces, podiums, roof decks and inset balconies
- ✓ Highly durable zinc nickel finish provides excellent corrosion resistance



NEEDS AND SOLUTIONS

Roof Falls

All factors that may impact overall drainage performance must be considered - accounting for construction tolerances, settlement and for deflection under load to mitigate the risk of back/negative falls away from the outlets, which may result in a build-up of standing water.

Designed Zero Falls

Defined as a roof with a fall between flat and 1:80.

Only third-party British Board of Agrément certified waterproofing and insulating systems that have gained approval for use with zero fall applications must be specified, such as our Hydrotech 6125 hot-melt, Derbigum reinforced bituminous membrane and Caltech QC waterproofing solutions.

BS6229 offers practical guidance to ensure a finished surface with a zero fall, that a design fall of 1:80 should be used, and a detailed structural analysis should account for the factors identified above.

The introduction of a fall is not mandatory to zero falls design if it can be demonstrated that compliance to avoid back falls has been fully addressed, including but not limited to:

- Standard construction tolerances for concrete surfaces are generally acknowledged as having no deviation of more than 9mm over a 2m length, nor any abrupt irregularities of more than 3mm.
- A detailed structural roof analysis to demonstrate that the design is fit for purpose and is within the requirements from the structural engineer's assessments on overall and local deflections.
- Drainage outlets ideally located at the lowest point of deflection.

Where areas are found by a site level survey to have back falls, which may hold water, remedial action should be taken in the form of a localised screed or additional rainwater outlet.

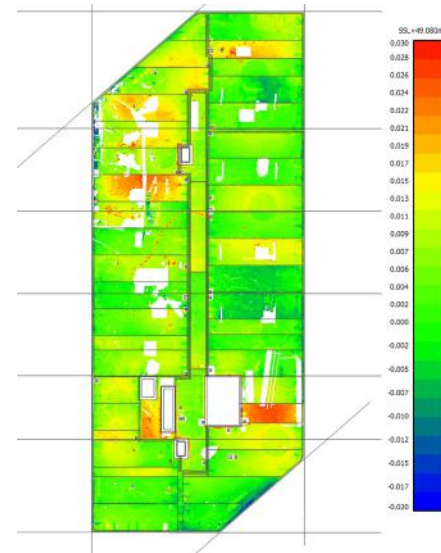
Monoscreed

Alumasc has specifically developed a cold-applied screed to correct levels where back falls are found to be present.

Monoscreed is a fast-curing PMMA based compound screed that is solvent and isocyanate free and can be applied from 3mm to 50mm.

Key Benefits

- ✓ Rainproof within 15 minutes
- ✓ Can receive foot traffic in 30 minutes
- ✓ Fully cured within 45 minutes
- ✓ Compatible with hot-melt, bituminous and cold-applied liquids
- ✓ Pre or post correction of waterproofing
- ✓ Eliminates migration of water between screed and waterproofing



NEEDS AND SOLUTIONS

Roof Drainage

Efficient roof drainage and water management to provide lasting performance should be considered at the early stages of design to mitigate undue risk. Selecting the correct rainfall intensity and outlet type to achieve positive drainage and reduce long-term ponding is essential.

Rainwater Design

Approved Document H, requirement H3, gives practical guidance for adequate disposal of rainwater from roofs, accessibility for maintenance, and minimising the risk of blockage or leakage.

Rainwater calculations are carried out in accordance with **BS EN 12056**. The steps in the calculation method include duration of the storm event (normally 2 minutes), projected lifespan of the building (nom. 60 years), what degree of risk can be accepted that the design rainfall intensity might be exceeded during the lifespan, and appropriate return period for the storm, this being defined by four different categories of risk:

- Cat 1 - Return period of 1 year.
For use where overflow can occur regularly e.g. no upstand.
- Cat 2 - Return period of 1.5 x design life of the building.
For normal building 1.5 x 60 year = 90 years.
- Cat 3 - Return period of 4.5 x design life of the building.
For buildings requiring a higher degree of security 4.5 x 60 = 270 years.
- Cat 4 - Maximum probably rainfall with no defined period.

Alumasc offers a free calculation service in support of our total roofing solution to design and quantify your rainwater drainage requirements in accordance with **BS EN 12056**.



Alumasc Roof Drainage

Alumasc is synonymous with water management and offers an unrivalled choice of single source innovative drainage solutions designed for exceptional performance which are engineered to last.

By engagement with our team, we can help to guide you through our range of roof drainage products according to your project needs and ensuring full compatibility with the roof assembly.



For further information on our range of drainage solutions just click [here](#).

NEEDS AND SOLUTIONS

Upstand Heights

In accordance with good practice the implications of the requirement to achieve a minimum upstand height not less than 150mm above the finished roof level should be considered at design stage. For protected roofing systems such as paved, ballasted, green roofs that is 150mm above the upper surface, and for blue roof attenuated systems with a self-finished waterproof covering it is above the attenuated depth.

Accessible Thresholds

The requirement for an accessible threshold that is level, or if raised, to a total height of not more than 15mm, is acceptable for warranty purposes on the proviso that specific conditions are met, including:

- Achieves a localised minimum 75mm upstand below the projecting cill to the waterproofing layer, or in the case of inverted, the insulation.
- Achieves a minimum projection cill of 45mm.
- Achieves a minimum 10mm gap between the roof finishes and cill.
- Has sufficient drainage capacity and overflow provision.

For further guidance refer to Chapter 7.1 of the NHBC standards.

What if a 150mm upstand is not achievable?

Product selection can have an impact on design. Insulation is the governing factor on heights to achieve u-value requirement. Here are a few alternative approaches to minimise build-up height.

Hydrotech 6125 Hybrid

The use of a hot-melt waterproofing system is often favoured in new build developments due to its unique properties, performance, and durability. However, the thermal performance of the insulations typically used are less thermally efficient than other materials and exceed heights available.

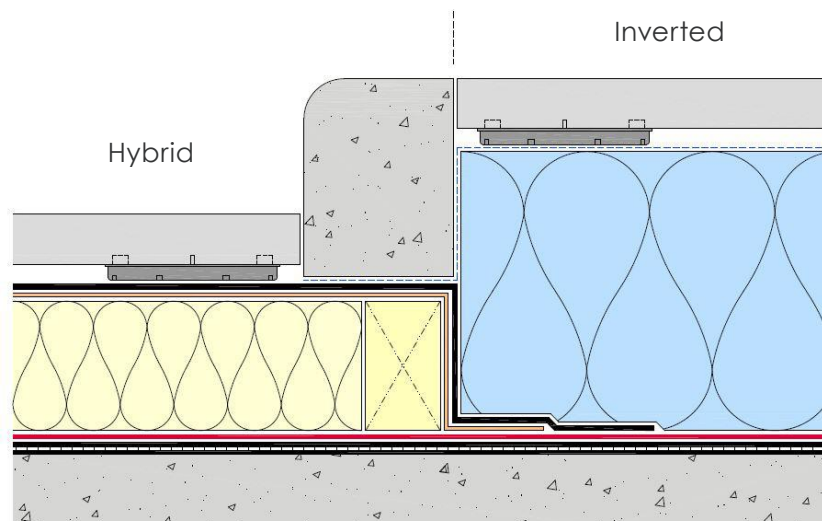
The hybrid solution addresses this by combining the use of Hydrotech 6125 hot-melt, a warm roof insulation material with improved thermal value, and our Derbigum reinforced bituminous membrane as a capping layer. Subsequent overlying finishes are then laid above.

Vtherm - For warm and inverted roofs

Alumasc Vtherm is a vacuum insulation panel (VIP) with a declared thermal conductivity of just 0.007 Wm/K. It provides an insulating performance up to five times higher than other more traditional insulation types and is ideal for projects with limited construction heights.

Alumasc offers a full design service, which maximises the ratio of vacuum insulation panels to the required (non-VIP) infill boards, prior to calculating the weighted u-value for project compliance.

A good example of this solution can be found on the Victoria and Albert Museum.



OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Reinforced Bitumen Membranes with Environmental Benefits

Derbigum Reinforced Bitumen Membranes remains one of the most widely used waterproofing solutions worldwide, with a proven track record since 1967. The latest evolution of Derbigum membranes feature products with a CO₂ neutralising finish and high recycled content.

Derbigum Olivine

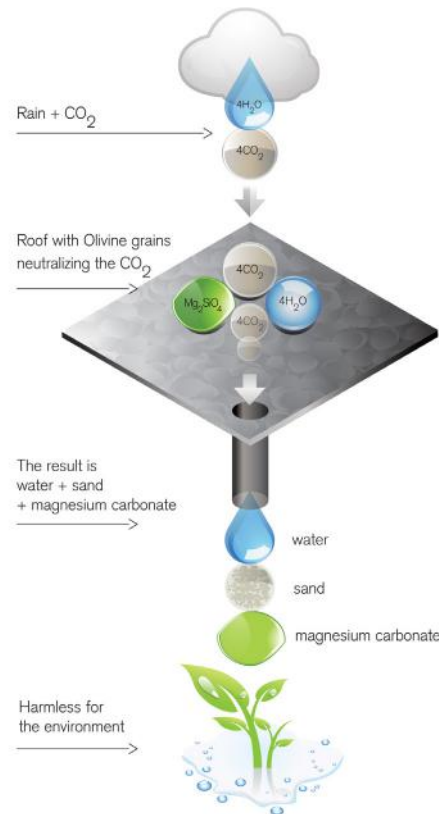
Derbigum Olivine is a premium reinforced APP polymer modified bituminous waterproofing membrane with a mineral upper layer that neutralises CO₂ in rainwater.

This unique product has not only environmental benefits but is combined with the proven 40 Year BBA durability of Derbigum roofs.

Olivine is a mineral that is fundamentally Earth's natural solution against the most significant of greenhouse gases, CO₂.

When rainwater encounters Olivine an irreversible chemical reaction occurs. CO₂ is neutralised, and the result creates a residue in the form of sand and magnesium carbonate - two products that are harmless to the environment which are drained from the roof area via the outlets.

1 kg of Olivine can permanently neutralise 1.25 kg of atmospheric CO₂ (i.e. 1m² can neutralise up to 1.75 kg of CO₂). The Olivine grains decrease in size with each reaction; however, the grains are large enough to last at least 30 years before having completely reacted.

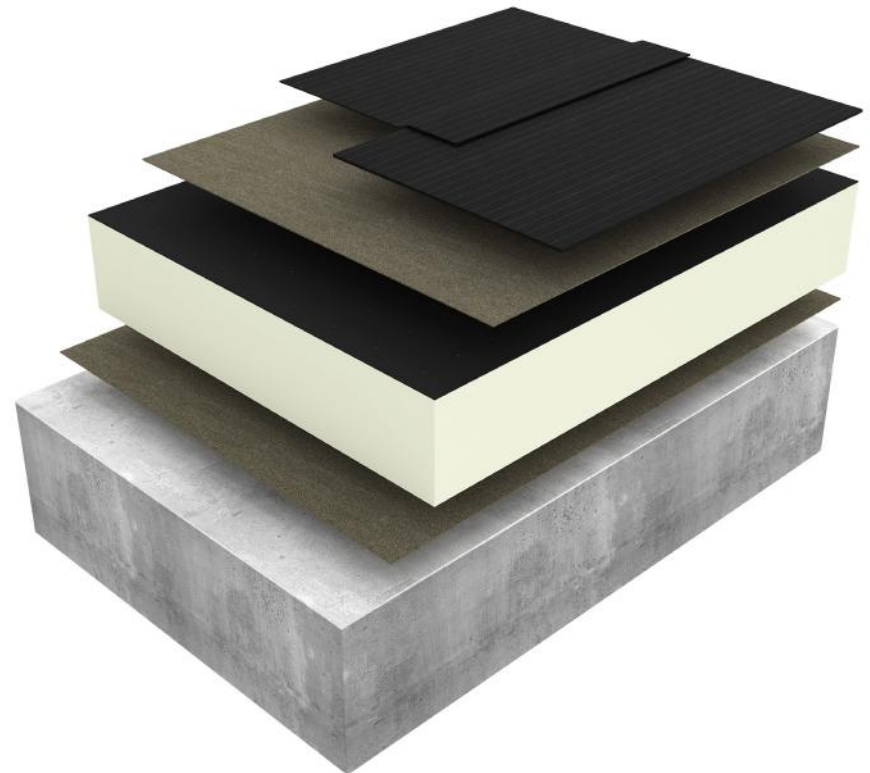


Derbigum NT

Derbigum NT and Derbigum NT Underlay are reinforced hybrid modified bituminous waterproofing membranes manufactured using 30% of recycled materials.

The specific formula blended with polymers gives exceptional, durable characteristics and is 100% recyclable at the end of its life.

During manufacture, it produces approximately 20% less CO₂ when compared to conventional membranes and consumes 30% less primary energy in production.



OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Blue Roofs

Urbanisation has reduced the ability of land to absorb rainfall through the introduction of hard, impermeable surfaces resulting in an increase in the volume and rate of surface run-off. The Alumasc BluRoof system is a fully warranted single-source waterproofing and sustainable drainage solution (SuDS) designed to alleviate flood risk by reducing and controlling the peak rate of discharge of rainwater from the roof.

How does it work?

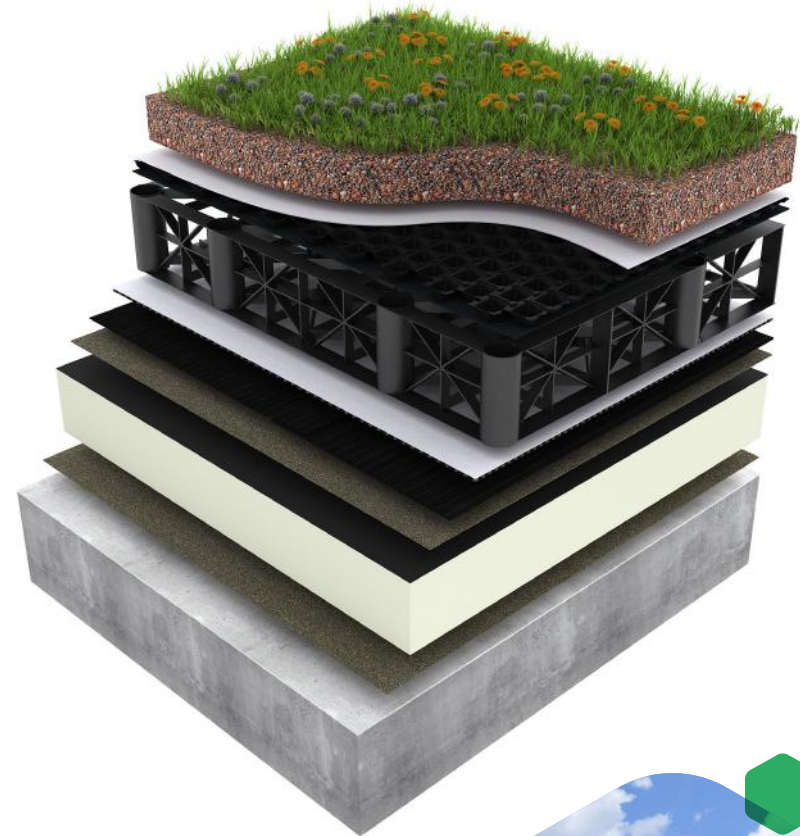
The Alumasc engineered solution restricts the maximum permissible discharge of rainwater from the roof to a calculated level: accounting for the stage-discharge relationship. As a result, during more intense storm events, rainfall will exceed the rate of discharge, leading rainwater to attenuate across the area for a maximum period of 24hrs until the controlled outlet has discharged it all.

Blue Roof Design

Blue Roof design is unique to every project according to the size of the area, geographical location, and performance requirements e.g. run-off rate (l/s), detention volume etc. Alumasc offers a full design service and will provide a comprehensive report detailing the Blue Roof response to your design SuDS parameters.

- Analysis is typically based on 1-100 year risk + 40% climate change.
- Rainfall data models used: Flood Estimation Handbook (FEH)
Flood Studies Report (FSR)
- A series of storm duration from 5 minutes to 48hrs are analysed to determine the critical duration which will result in the maximum volume of storage.
- Rainfall is attenuated for no more than a 24hr period.
- Retention volume is to be at least half empty in a 12hr period.

Blue Roofs work particularly well when they are as close to level as possible and the rainwater is distributed evenly. This avoids concentrated loads on the structure at low points, reduces pressure on construction elements, and makes efficient use of the available catchment area.



OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Blue Roofs

Surcharge

To ensure that the roof's integrity is preserved, sufficient overflow capacity is a requirement in the event of rainfall exceeding design storm criteria, or in the event of operational issues such as blockages with the outlets. Once attenuation reaches its predetermined maximum volume, overflow is deemed to occur instantaneously.

Structural Loading

The additional loads imposed by a Blue Roof are a function of the maximum prescribed stage (water depth); a design parameter that can be quantified to suit the structural capacity of the underlying substrate as well as the hydrologic performance requirement.

Waterproofing

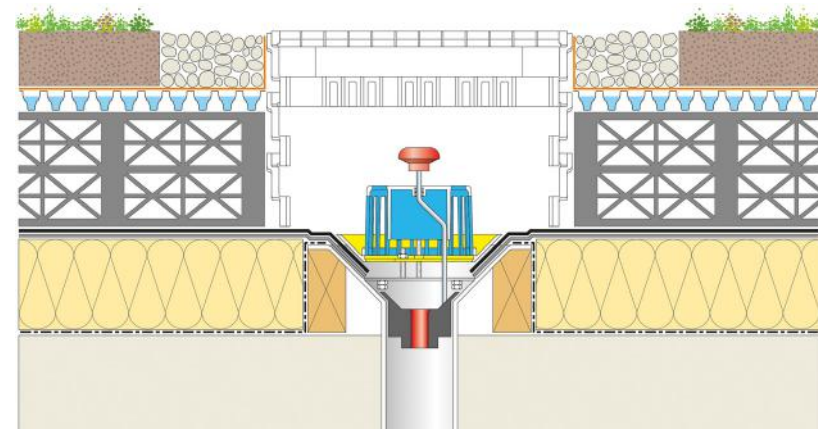
The temporary attenuation of water at roof level requires the highest confidence in the waterproofing solution. Only third-party British Board of Agrément certified waterproofing that have gained approval for use with Blue Roofs must be specified such as our Derbigum reinforced bituminous membrane and Hydrotech 6125 hot-melt.

Our BluRoof system is a fully warranted waterproofing and sustainable drainage solution that is integral to the management of the key risks and fulfilment of the objectives that are associated with a system of this kind. Comprehensive warranties provide reassurance to the building owner that the integrity of the solution provides whole-life value.

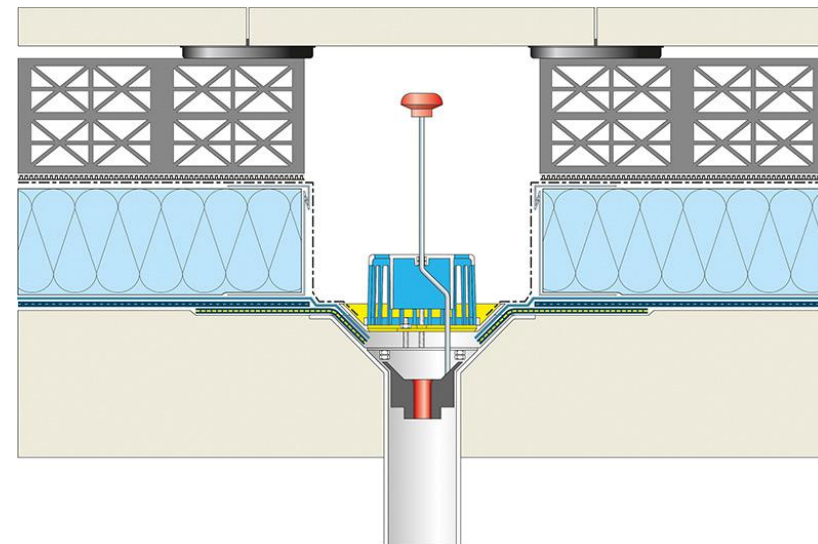
Void Former

For systems that will feature landscaping such as paved, ballasted, green roofs etc. the build-up includes a void former to lift the finishes above the maximum attenuated volume.

Typical warm roof with green roof



Typical inverted roof with pavements



OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Green Roofs

Green roofs benefit the wider environment through their positive impact on sustainability, biodiversity, climate change, building performance, attenuation of stormwater (SuDS), and encouragement of wildlife in urban areas. Here we explore the various types and the design considerations.

Blackdown Extensive Green Roof systems are a low maintenance solution which are not normally used as an amenity or leisure spaces.



Extensive Sedum Roofs

- ✓ Provide aesthetic interest and diversity.
- ✓ Comprise low-growing plants, such as sedums, or other frost and drought tolerant species.
- ✓ Planting offered in the form of a pre-grown NatureMat®, providing 95% coverage on installation, or plug plants providing 5-10% coverage on installation.
- ✓ Typical build-up height is 85 to 100mm.
- ✓ Saturated weight of approx. 86 to 100Kg/m².



Extensive Biodiverse Roofs

- ✓ Replace or replicate habitats that have been lost or are in decline.
- ✓ Comprise a variety of succulents, grasses, herbaceous perennials, wildflowers, and alpine.
- ✓ Planting offered in the form of plug plants or pre-determined seed mixes.
- ✓ Undulating substrate depths with habitat incidentals e.g. piles of broken bricks, log piles or insect hibernacula offer suitable habitats to a variety of wildlife species and ground birds.
- ✓ Typical build-up height is 90 to 170mm.
- ✓ Saturated weight of approx. 115 to 215Kg/m².



Extensive Brown Roofs

- ✓ Brown roofs offer similar advantages as biodiverse but are left to self-colonise.
- ✓ Plant material can either blow in from the local environment or be introduced by birds.
- ✓ Undulating substrate depths are often introduced.
- ✓ Typical build-up height is 85 to 100mm.
- ✓ Saturated weight of approx. 86 to 100Kg/m².

NB. Once established extensive roofs will not require supplementary irrigation.

OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Green Roofs

Blackdown Intensive Green Roof systems are most easily compared to traditional ground level gardens and parks - creating multi-functional recreational and amenity spaces capable of supporting virtually any form of landscaping.



Semi-Intensive Wildflower Green Roofs

- ✓ Provide great aesthetic appeal.
- ✓ Comprise a wider range of plants such as grasses, wildflowers, and herbs.
- ✓ Planting offered in the form of pre-grown mats, plug plants or seed mix.
- ✓ Compared to intensive build-ups they require relatively low maintenance.
- ✓ Typical build-up height is 140 to 210mm.
- ✓ Saturated weight of approx. 150 to 220 Kg/m².
- ✓ Provision for supplementary irrigation is recommended.



Intensive Roofs

- ✓ Designed for usable access with far greater scope for design.
- ✓ Driven by planning/local authority targets as well amenity health, and social cohesion goals.
- ✓ Usually feature a mixture of hard and soft landscaping with lawns, shrubs and semi-mature trees combined with materials to create leisure spaces, paths, walkways, play areas etc.
- ✓ Typical build-up height ranges from 300 to 1500mm subject to requirement.
- ✓ Saturated weight of >400Kg/m².
- ✓ Permanent irrigation systems should be incorporated into the scheme.



Roof Top Production Gardens

- ✓ Provide new opportunities for urban agriculture.
- ✓ Similar to an intensive roof using our engineered lightweight topsoil.
- ✓ Used to grow fruit, vegetables, and herbs.
- ✓ Typical build-up height >300mm subject to requirement.
- ✓ Saturated weight of >400 Kg/m².
- ✓ Provision for supplementary irrigation depends on the fruit, vegetable, or herb species.

OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Green Roofs

When designing a green roof, it is important to first establish type by the intended objectives which will influence the underlying component build-up. The benefit of combined expertise associated with Blackdown Roof & Podium Landscaping in horticulture and planting and Alumasc Roofing in waterproofing provide a collaborative solution to provide long-term waterproof integrity and flourishing growth of the plant species.

Green Roof Design

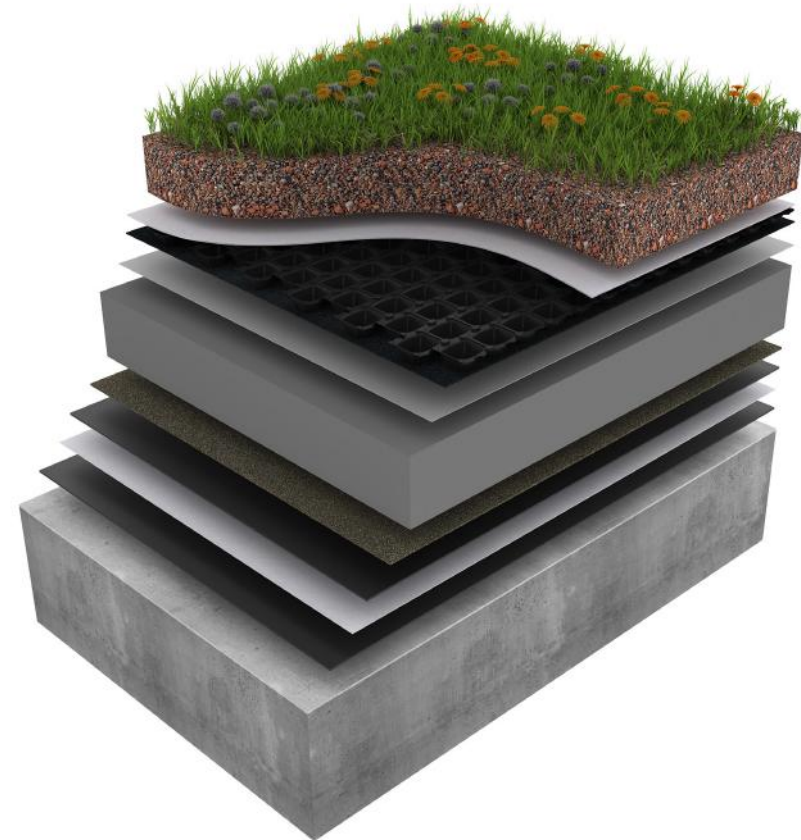
The range of Blackdown systems ensures the right build-up can be provided to meet the requirements of any landscape.

The elements of a green roof comprise of:

- Carefully selected plants according to green roof type
- Engineered growing medium
- Filter membrane
- Drainage/reservoir layer
- Moisture retention mat
- Root resistant waterproofing membrane

Design considerations include:

- ✓ Aesthetics
- ✓ Biodiversity targets
- ✓ Functional requirements
- ✓ Structural design
- ✓ Fire
- ✓ Irrigation
- ✓ Safety and Access
- ✓ Maintenance
- ✓ Plant selection according to goals, geographical location, exposure



Waterproofing

The waterproofing layer and its suitability for use within a green roof system must be assured. Only third-party British Board of Agrément certified waterproofing that have gained approval for use with green roof applications must be specified, which are resistant to plant roots or rhizomes growing into or through it.

Recommended waterproofing solutions

- ✓ Hydrotech 6125 Hot-Melt Waterproofing
- ✓ Derbigum AR Reinforced Bitumen Membrane
- ✓ Caltech QC and Caltech FCP Cold-Applied Liquid Coatings

OUR ENVIRONMENTAL/SUSTAINABLE SOLUTIONS



Green and Blue Roofs

Building Research Establishment Environmental Assessment Method (**BREEAM**) is a sustainability assessment method and rating system for the performance of buildings from design through to a constructed building.

How does it work?

BREEAM assesses development sustainability across 10 different categories and then awards credits if it delivers environmental, economic or social benefits.

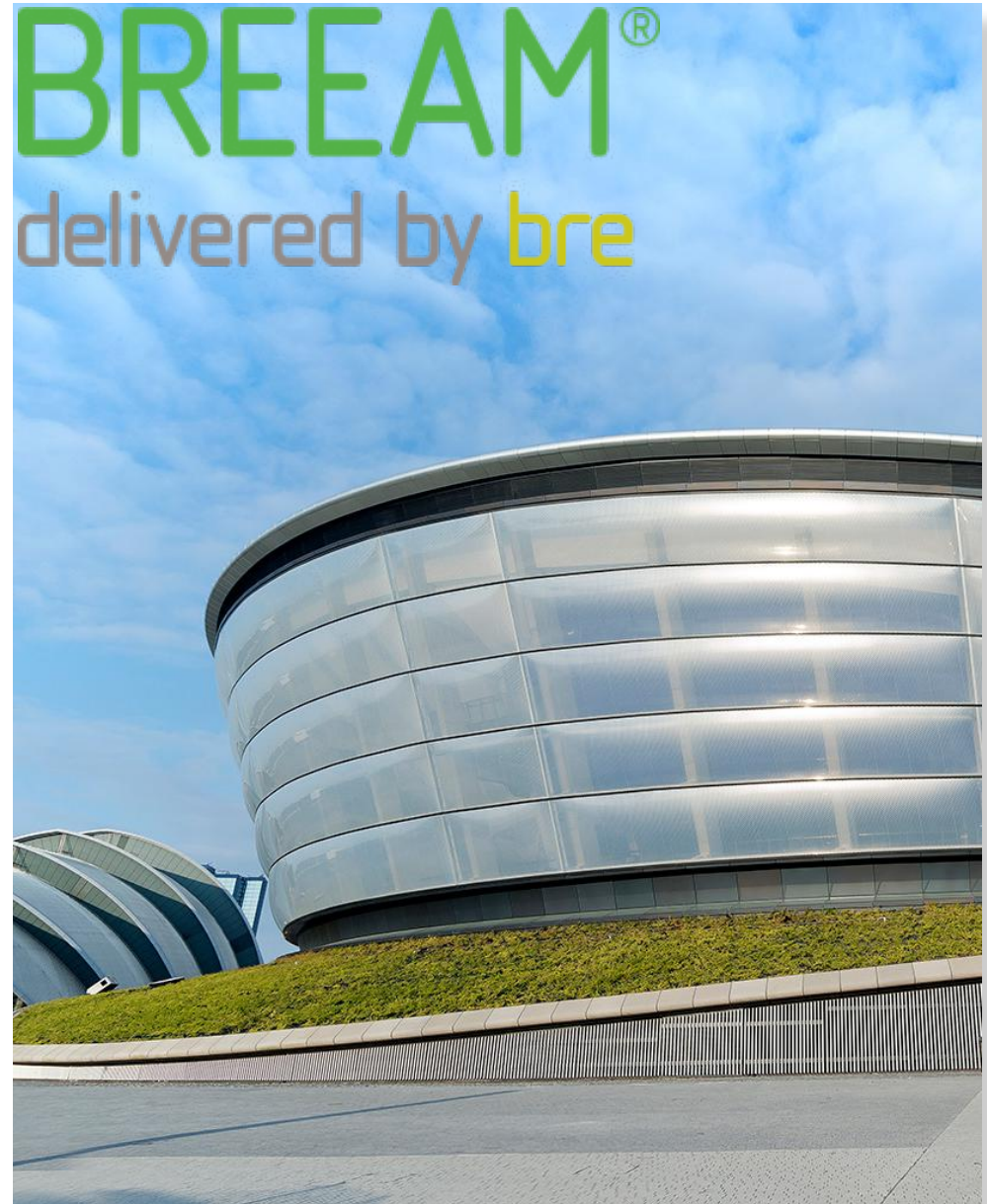
Credits are then totalled to determine the overall rating on a scale of Unclassified (<30%), Pass (>30%), Good (>45%), Very Good (>55%), Excellent (>70%) and Outstanding (>85%).

How can we help?

The addition of a Green and/or Blue Roof can contribute **BREEAM** credits in the following categories with other measures considered.

- ✓ Ene 01 Reduction of CO₂ emissions
- ✓ Hea 05 Acoustic performance
- ✓ LE 03 Mitigating ecological impact
- ✓ LE 04 Enhancing site ecology
- ✓ LE 05 Long Term Impact on biodiversity
- ✓ Mat 03 Responsible sourcing of materials
- ✓ Mat 04 Insulation
- ✓ Man 04 Stakeholder participation
- ✓ Pol 03 Flood risk management and reducing surface water run-off
- ✓ Wst 02 Recycled aggregates

A **BREEAM** Assessor will be responsible for managing the process and validating compliance against relevant criteria.



OUR ROOF ACCESSORIES

Our Roof-Pro division specialises in engineered building services support solutions offering a range of ancillary components which complement our roofing solutions, these include:

Roof Service Entry



For pipe and cable entry

Roof-Pro risers provide the building team and service engineers with a consistent quality solution for unavoidable penetrative details on flat roofs.

The PP3 access riser provides a watertight entry point to run larger cables and pipes into your building. Once installed, the building is immediately dry, and following trades can fully access the riser by temporarily removing the lid.

Roof-Nek upstand facilitates the support of small service pipes and cables with a durable easy access design. It ensures small cable and pipe entry points are watertight. The internal diameter is 52mm.



Service Supports



For freestanding rooftop management

Roof-Pro freestanding engineered solutions facilitate the support of building services on flat roofs, without the critical drawback of penetrating the building's protective waterproofing membrane.

Available in two distinct product ranges:

Roof-Pro bespoke solutions

A design-led range of building services supports and access solutions that are tailored to individual project requirements. A 20 Year warranty is available for bespoke systems.

Sure-Foot standard range

Standard roof plant and services support products that meet the growing demand for off-the-shelf, lightweight support solutions. The range includes components, support frames and edge protection systems.

Edge Protection



Lightweight edge protection systems

Ideal for situations where fall protection is required, Sure-Foot Guardrail comprise four systems – Freestanding, Parapet, Topfix and Folding, which have been specifically designed for installation on different edge details, but share common components so that they can be configured together for maximum flexibility.

All systems are supplied in kit form using the minimum number of components, allowing quick and easy handling and installation. The modular design ensures no on-site bending or welding is required.

OUR TECHNICAL AND SUPPORT SERVICE

We provide our clients with a comprehensive technical and support service, including:

Technical Design and Specification support

Engagement at the early stages of design from us ensures your project objectives are delivered.

Aftercare and Warranties

Peace of mind for you that once installed your waterproofing solutions are covered.



Specifications, CAD Detail Drawings and BIM objects

We ensure the correct solutions are proposed by providing written specification and detailed drawings to assist with design.



Installation QA and Site Reports

To guarantee quality assurance, our Site Technicians provide national coverage to oversee all installations. They regularly visit to document the progress with detailed reports and photographs, as well as highlight and help resolve any challenges that may arise.



Calculations

Rainwater, u-value, condensation analysis, and wind uplift calculations are provided in support of the specification provided.



Cost plan and tender stage assistance

Our nationwide network of registered contractors will provide budget costings for the solutions proposed.

ALUMASC REGISTERED CONTRACTORS WARRANTY

Installation of our waterproofing solutions is carried out by a national network of trained and registered contractors. Our contractors:

- ✓ Provide fully warranted workmanship as part of the warranty offer.
- ✓ Complete comprehensive training both in-house and on-site, with a register kept of all carded operatives.
- ✓ Are assessed for competence and suitability on specific project types prior to selection for tendering opportunities.
- ✓ Are assessed for financial stability.
- ✓ Are prepared to work beyond their local geographical boundaries where possible, therefore enabling us to provide a list of contractors to suit regional requirements.

We ensure that our registered contractor network receive valuable, hands-on assistance in the application of all solutions, as well as refresher training, whenever required, to ensure that applicators are aware of any product development.

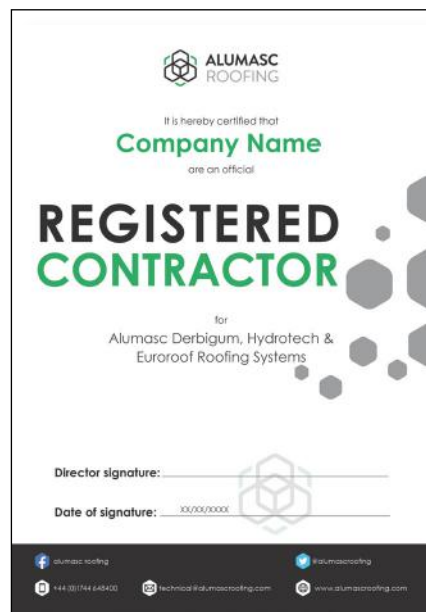
We offer a comprehensive choice of warranties to the customer in respect of the proposed roofing solution from the date of final completion.

Final warranty inspection: Our registered contractor will notify Alumasc to arrange a final inspection upon completion of the works.

Warranty release: The warranty will be issued via the appointed roofing contractor upon final completion.

The warranty assures the building owner that if the roof fails to remain watertight because of latent defect in products supplied by Alumasc, details designed by Alumasc or faulty workmanship of the Alumasc Contractor, Alumasc undertakes to reinstate the waterproof integrity of the roof.

Our warranty offers extend up to 40 years for your peace of mind. For further information relating to warranties for your specific project please contact head office or your local Area Technical Manager.





ALUMASC
ROOFING

Your Complete Roofing Solution

Environmentally Focussed | Responsibly Sourced | Ethically Driven



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