

DERBIGUM®
MAKING BUILDINGS SMART

Derbigum Bituminous Membranes

High performance waterproofing membranes available with extended warranties and the highest levels of project support.

Derbigum systems offer a variety of environmentally beneficial, sustainable characteristics which include membranes with high levels of recycled content, innovative CO₂ neutralising membranes, energy efficient 'cool' roofs and vegetal, non-bituminous solutions.



Derbigum

Bituminous Membranes

Derbigum has inspired confidence and peace of mind in building surveyors and architects since 1967. Over 600 million square metres have been installed worldwide, including 20 million square metres in the UK, making it the first choice for flat roof waterproofing.

Derbigum dual-reinforced APP (Atactic Polypropylene) modified bitumen roofing and waterproofing membranes have a life expectancy of 30-35 years according to independent assessment. Enhanced performance properties include flexibility, excellent fire ratings, stronger reinforcement and ease of application.

The membrane's excellent life expectancy is a direct result of the application of superior blending technology and an unrivalled understanding of the chemistry of polymer modification, driven by almost 50 years of development and experience.

Derbigum systems with specialist ecological features are available, and include CO₂ neutralising membranes, vegetal membranes, energy efficient 'cool' roofs and variants containing up to 30% recycled content. All Derbigum bituminous membranes are 100% recyclable.

Derbigum is only installed by leading UK contractors, guaranteeing expertise and quality control. Derbigum Registered Contractors work in a formal partnership with Alumasc, ensuring practical and durable solutions for flat roofing and waterproofing projects.

System Benefits

30-35 Years Life Expectancy

Examinations on roof constructions with a Derbigum upper layer aged between 10 and 27 years old have been carried out independently by BDA Dakadvies. The assessors said 'the quality of these older Derbigum roofs is such that the remaining lifespan will still be several years, affirming the life expectancy as 30 to 35 years.' It is also widely acknowledged that the installation of an inverted or green roof build-up will significantly enhance the lifespan of the roofing membrane below.

Durability

Derbigum has a high melt point ensuring stability of the membrane in the hottest weather. It has high tensile strength and its reinforcement ensures enhanced puncture resistance.

UV Resistance

Derbigum can be installed without any surfacing, regardless of the method of application, due to the unique blend of polymers which make Derbigum resistant to UV degradation.

Wind Uplift Testing

Derbigum systems are rigorously tested in-house to ensure security in extreme wind uplift conditions in accordance with BS EN 1991-1-4.

Fire Performance

The highest rating of F.AA is achieved by Derbigum Mineral. Standard Derbigum Black has a fire rating of F.AC to BS 476: Part 3 (ENV 1187/4). The use of Derbigum NT Black, Derbigum Black and Derbigum Mineral is unrestricted under the current Building Regulations.

British Board of Agrément Approved

Derbigum is approved by the British Board of Agrément (Certificate No 86/1593), who state:

"All available evidence suggests that the product will have a life in excess of 30 years."

CE Marking

All Derbigum roofing membranes, including underlays and vapour barriers, are CE marked, and Declaration of Performance (DoP) certificates are available upon request.

Derbigum Registered Installers

The Derbigum range is only supplied to registered contractors, whose contracts managers and operatives must undergo a stringent training programme at Alumasc's head office, prior to obtaining registered status. The quality of workmanship is monitored on site on an ongoing basis to ensure compliance with the warranty and current codes of practice.



Alumasc Warranty

Alumasc offer a number of warranty options, typically ranging from 20-35 years, covering product, design and installation.

Alumasc warranties are supported by public and product liability insurances with a total indemnity limit of £50 million. Third party insurance backing giving cover against latent product defects is available via Prudential Regulation Authority (PRA) regulated insurance brokers subject to independent final inspection, documented compliance with an agreed maintenance schedule and pre-payment of the relevant premium.

On selected projects, Alumasc are able to offer an enhanced warranty package which includes additional site monitoring and reporting, in-house leak detection surveys, and five-yearly site inspections for the duration of the warranty to ensure continued peace of mind.

The warranty is issued following successful application of the Derbigum system and subsequent leak testing.



Environmental Benefits

Advanced production techniques, in-service benefits and end-of-life recyclability combine to significantly reduce the ecological footprint of a building waterproofed with a Derbigum system.

Recyclable

All Derbigum bituminous membranes are 100% recyclable using the Macaluser® technique – a unique bitumen waste processor, recycling roofing off-cuts and bituminous waste. Derbibond NT is supplied in polyethylene-lined drums which are uncontaminated after use and re-usable.

Recycled Content

Derbigum's manufacturing technologies allow up to 25% recycled content in Derbigum NT Black and 30% in the Derbicoat NT underlay.

CO₂ Neutralising Membrane

Derbigum Olivine membranes neutralise up to 1.75kg of CO₂ in rainwater per square metre, thus contributing to a reduction in the greenhouse effect.

Vegetal Membrane

Derbipure is a revolutionary new membrane manufactured from vegetable oils and resins, and is bitumen-free. The reflective acrylic coating brings the additional benefit of passive cooling to the building during hot weather.

Cool Roof Membranes

The reflective coating of the Derbipure membrane greatly reduces surface temperatures by reflecting up to 81% of sunlight, thereby lowering air-conditioning requirements by passive cooling of the building. Photovoltaic panels on cool roofs are up to 2% more efficient due to the lower ambient temperature.

pH Neutral Rainwater Run-off

The acrylic coating of Derbipure ensures that rainwater run-off remains pH neutral and is suitable for recycling.

VOC-free Adhesive

The Derbibond NT cold bonding adhesive is completely free from Volatile Organic Compounds and is solvent-free.

BREEAM Ratings

Ratings for building materials given in the 2008 BRE Green Guide to Specification allow designers to choose those products or construction methods with the least environmental impact.

Derbigum high performance waterproofing membranes contribute to a very good generic rating in the Green Guide to Specification dependent on the roof construction into which they are incorporated. This can range from an 'A+' rated warm roof construction on timber and metal decks through to a 'D' rated inverted build up incorporating concrete. The choice of substrate will greatly influence the final construction rating. Most warm roof constructions achieve an 'A+' or 'A' rating.

Quality

Manufacturing procedures are independently audited to the ISO 9001: 2008 Quality Management System and comply with the ISO 14001: 2004 Environmental Management System.

Derbigum System Selector

Concrete Deck

| Cap Sheet | Application | Underlay | PIR Insulation | Insulation Adhesion | Vapour Control | Primer |
|---|------------------------------|---------------------------|----------------|---------------------|----------------|----------------|
| Derbigum NT Derbigum Black Derbigum Anti-Root Derbigum Olivine Derbigum Mineral | Torch-applied | Hi Ten Universal (T/O) | BGT | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Torch-applied | Derbicoat NT (T/O) | BGT | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Torch-applied | Derbicoat Selfix HP (S/A) | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |
| Derbipure | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |

Plywood Deck

| Cap Sheet | Application | Underlay | PIR Insulation | Insulation Adhesion | Vapour Control | Primer |
|---|------------------------------|---------------------------|----------------|---------------------|---------------------------|----------------|
| Derbigum NT Derbigum Black Derbigum Anti-Root Derbigum Olivine Derbigum Mineral | Torch-applied | Hi Ten Universal (T/O) | BGT | PU Adhesive | Derbicoat Selfix HP (S/A) | Bitumen Primer |
| | Torch-applied | Derbicoat NT (T/O) | BGT | PU Adhesive | Derbicoat Selfix HP (S/A) | Bitumen Primer |
| | Torch-applied | Derbicoat Selfix HP (S/A) | GTF | PU Adhesive | Derbicoat Selfix HP (S/A) | Bitumen Primer |
| | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Derbicoat Selfix HP (S/A) | Bitumen Primer |
| Derbipure | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Derbicoat Selfix HP (S/A) | Bitumen Primer |

Metal Deck

| Cap Sheet | Application | Underlay | PIR Insulation | Insulation Adhesion | Vapour Control | Primer |
|---|------------------------------|---------------------------|----------------|---------------------|----------------|----------------|
| Derbigum NT Derbigum Black Derbigum Anti-Root Derbigum Olivine Derbigum Mineral | Torch-applied | Hi Ten Universal (T/O) | BGT | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Torch-applied | Derbicoat NT (T/O) | BGT | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Torch-applied | Derbicoat Selfix HP (S/A) | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |
| | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |
| Derbipure | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Torch-applied* | Bitumen Primer |

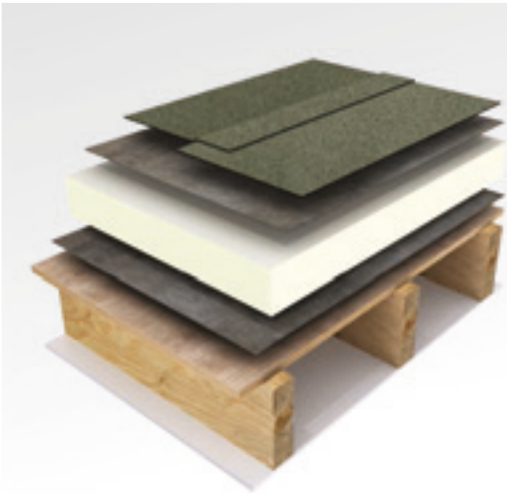
Refurbishment

| Cap Sheet | Application | Underlay | PIR Insulation | Insulation Adhesion | Vapour Control | Primer |
|---|------------------------------|---------------------------|----------------|---------------------|------------------|----------------|
| Derbigum NT Derbigum Black Derbigum Anti-Root Derbigum Olivine Derbigum Mineral | Torch-applied | Hi Ten Universal (T/O) | BGT | PU Adhesive | Derbicoat NT Alu | Bitumen Primer |
| | Torch-applied | Derbicoat NT (T/O) | BGT | PU Adhesive | Derbicoat NT Alu | Bitumen Primer |
| | Torch-applied | Derbicoat Selfix HP (S/A) | GTF | PU Adhesive | Derbicoat NT Alu | Bitumen Primer |
| | Derbibond NT (cold adhesive) | n/a | GTF | PU Adhesive | Derbicoat NT Alu | Bitumen Primer |
| | Torch-applied | Hi Ten Universal (T/O) | n/a | n/a | n/a | Bitumen Primer |
| | Torch-applied | Derbicoat NT (T/O) | n/a | n/a | n/a | Bitumen Primer |
| | Torch-applied | n/a | n/a | n/a | n/a | Bitumen Primer |

Notes: *Derbicoat NT Alu, Derbicoat NT or Hi Ten Universal vapour control layers
See Product Data table for full product descriptions

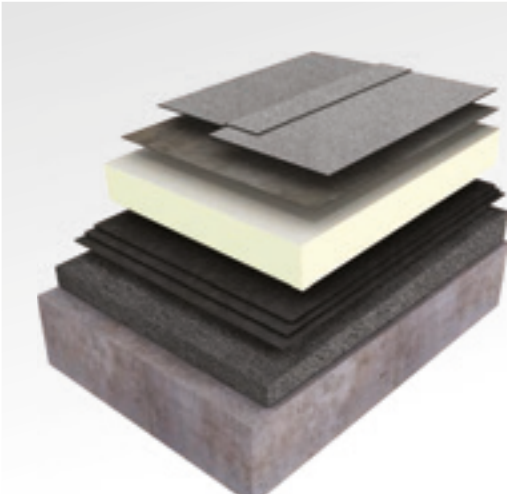
| | | | |
|-----|---------------|-----|---------------|
| T/O | Torch-applied | S/A | Self-Adhesive |
|-----|---------------|-----|---------------|

Typical Applications



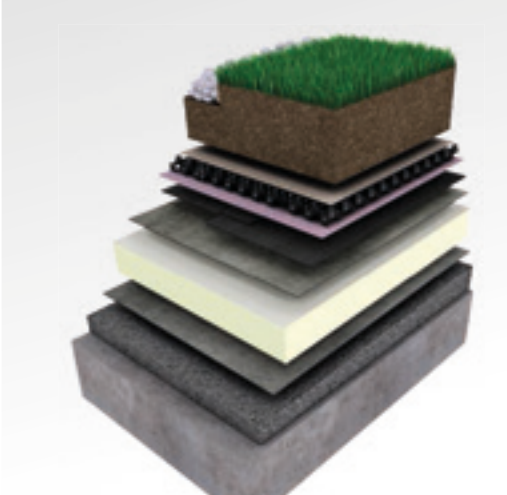
Warm Roof – New Build or Refurbishment

| |
|--|
| Derbigum Olivine – CO ₂ neutralising cap sheet |
| Derbigum NT Underlay – torch-applied |
| Alumasc PIR Insulation – rigid urethane |
| Derbigum Selfix HP Vapour Control Layer – flame-free application |
| Plywood Deck – suitably primed with Alumasc Bitumen Primer |



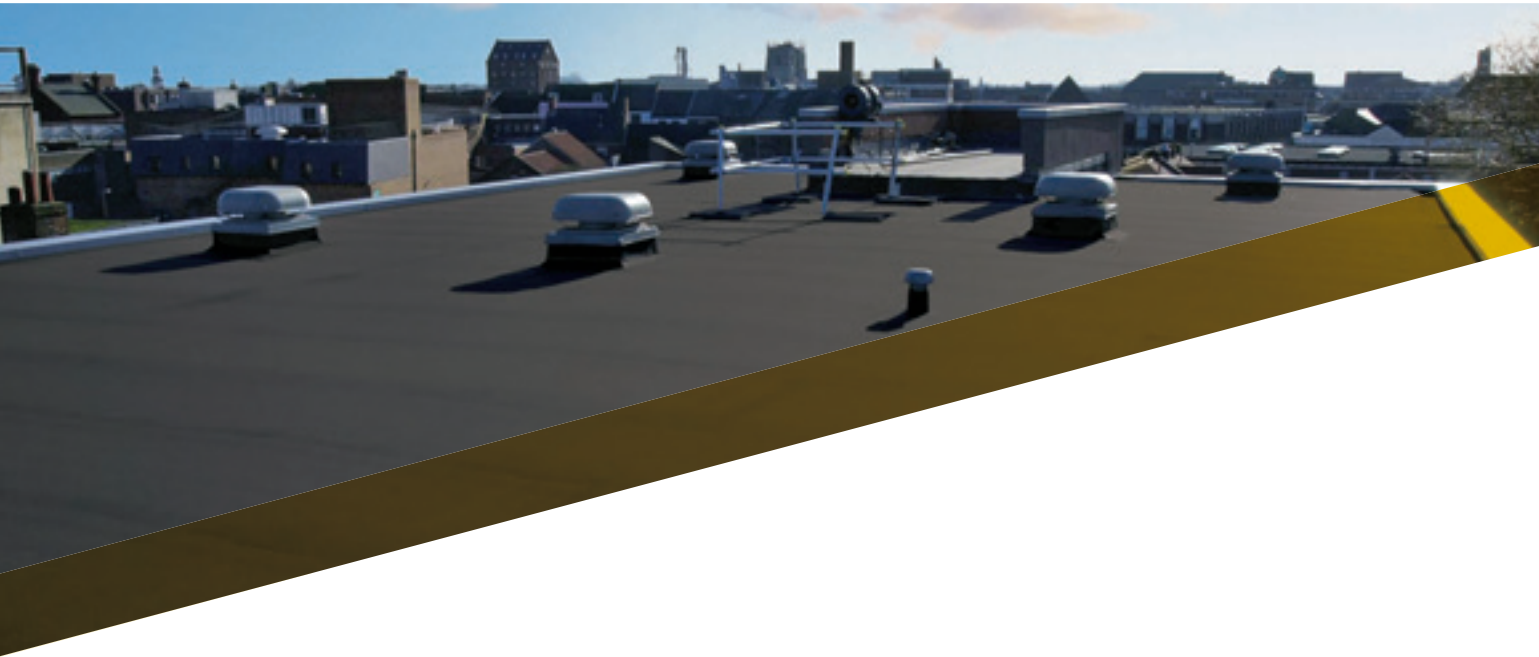
Warm Roof – Refurbishment

| |
|--|
| Derbigum NT Black – self-finished cap sheet |
| Derbigum NT Underlay – torch-applied |
| Alumasc PIR Insulation – rigid urethane |
| Derbigum NT Alu Vapour Barrier – torch-applied |
| Existing Roofing (if retained) – suitably primed with Alumasc Bitumen Primer |
| Existing Concrete Deck |



Green Roof – New Build

| |
|--|
| Blackdown Vegetation – lawns, annual, biennial or perennial plants, shrubs, sedums etc |
| Stone Vegetation Barrier – 20-40mm round washed stone and/or paving |
| Blackdown Substrate – lightweight growing medium |
| Blackdown Filter Sheet – 110g polypropylene |
| Blackdown Drainage Layer – cusped, recycled HDPE |
| Blackdown Protection Fleece – 300g polypropylene |
| Derbigum Anti-Root – root resistant cap sheet |
| Derbigum NT Underlay – torch-applied |
| Alumasc PIR Insulation – rigid urethane |
| Derbigum NT Alu Vapour Barrier – torch-applied |
| Concrete Deck – suitably primed with Alumasc Bitumen Primer |



Derbigum Black

Derbigum NT Black

The Derbigum NT waterproofing membrane offers environmental benefits as it is manufactured using a minimum of 25% recycled material. It can be used for both new build and refurbishment projects to upgrade thermal performance, improve roof drainage and/or restore the water-tightness of existing roofs.



As a self-finished (non-mineralised) membrane, Derbigum NT can be used unsurfaced, without loss of performance. It is ideal for use as a cap sheet in either a cold applied single layer system, or torch-applied cap sheet in a traditional built-up roofing system.

Derbigum Black

A Derbigum Black variation, manufactured using conventional techniques and materials is also available. This is BBA certified – Cert No. 86/1593, and the BBA state ‘under normal service conditions Derbigum Black will provide a durable waterproof covering with a service life in excess of 30 years’.

Derbigum Anti-Root

Derbigum membranes are also available in FLL approved anti-root variants for green roof applications.

Derbigum GC

Derbigum GC is a 5mm extra-heavy duty membrane for single layer torch-applied application in roads, bridges and other civil engineering applications, and is suitable for receiving poured concrete or directly hot-rolled asphalt.

Key Features

Warranty

The typical warranty period for Derbigum Black membranes is up to 35 years.

Performance

Derbigum membranes perform in the harshest conditions, with their APP-modified bitumen and dual polyester and glass fibre reinforcements ensuring excellent resistance to puncture and UV degradation.

Derbigum NT Black

Black cap sheet

Derbicoat NT

Torch-applied underlay

Alumasc PIR Insulation

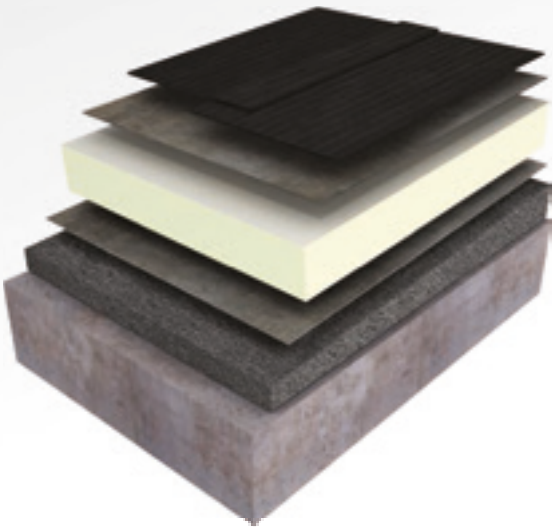
Available with glass tissue or bitumen glass tissue facings

Derbicoat NT Alu

Torch-applied vapour barrier

Screeded Concrete Deck

Suitably primed with Alumasc Bitumen Primer



Derbigum Olivine

CO₂ Neutralising Membrane

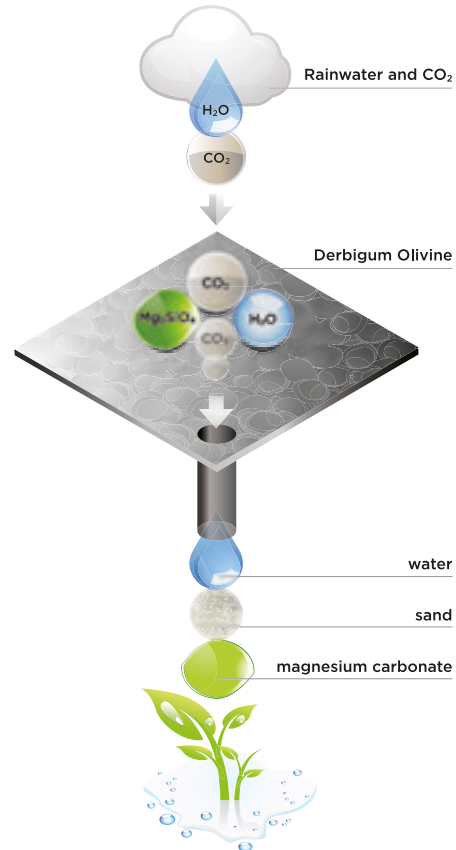
Derbigum Olivine is a high performance flat roofing membrane comprising APP-modified bitumen, composite reinforcement and natural olivine granule surfacing, which has an opaque olive-green appearance.

When rainwater comes into contact with olivine, an irreversible chemical reaction occurs. CO₂ is neutralised permanently and the result creates a residue in the form of sand and magnesium carbonate, two products that are harmless to the environment. One square metre of Derbigum Olivine will neutralise approximately 1.75kg of CO₂.

The Olivine membrane is ideal for use as a cap sheet in either a cold-applied single layer system, or torch-applied as a cap sheet in a traditional built-up roofing system, in both new build and refurbishment projects.

Derbigum Mineral

Derbigum Mineral is also available as an alternative with a standard mineral surface in either light grey or charcoal.



Key Features

Warranty

The typical warranty period for Derbigum Olivine and Derbigum Mineral is up to 35 years.

Lifespan

According to BBA certificate 86/1593, 'under normal service conditions the membranes will provide a durable waterproof covering with a service life in excess of 30 years'.

Performance

The Derbigum Olivine high performance membrane comprises APP-modified bitumen with dual polyester and glass fibre reinforcement, ensuring excellent resistance to puncture and UV degradation.

Derbigum Olivine

CO₂ neutralising mineral surfaced cap sheet

Hi Ten Universal

Torch-applied underlay

Alumasc PIR Insulation

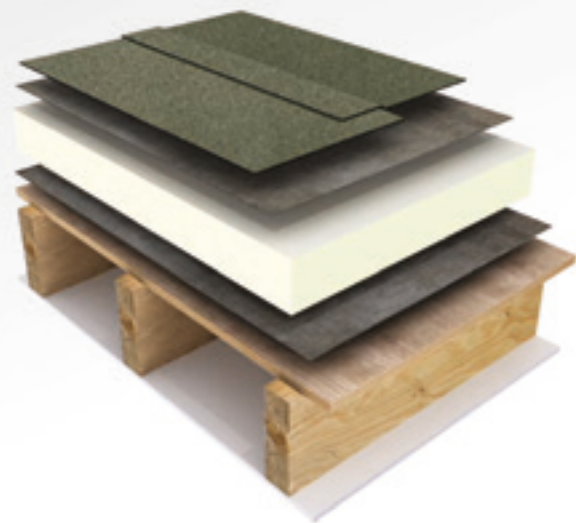
Available with glass tissue or bitumen glass tissue facings

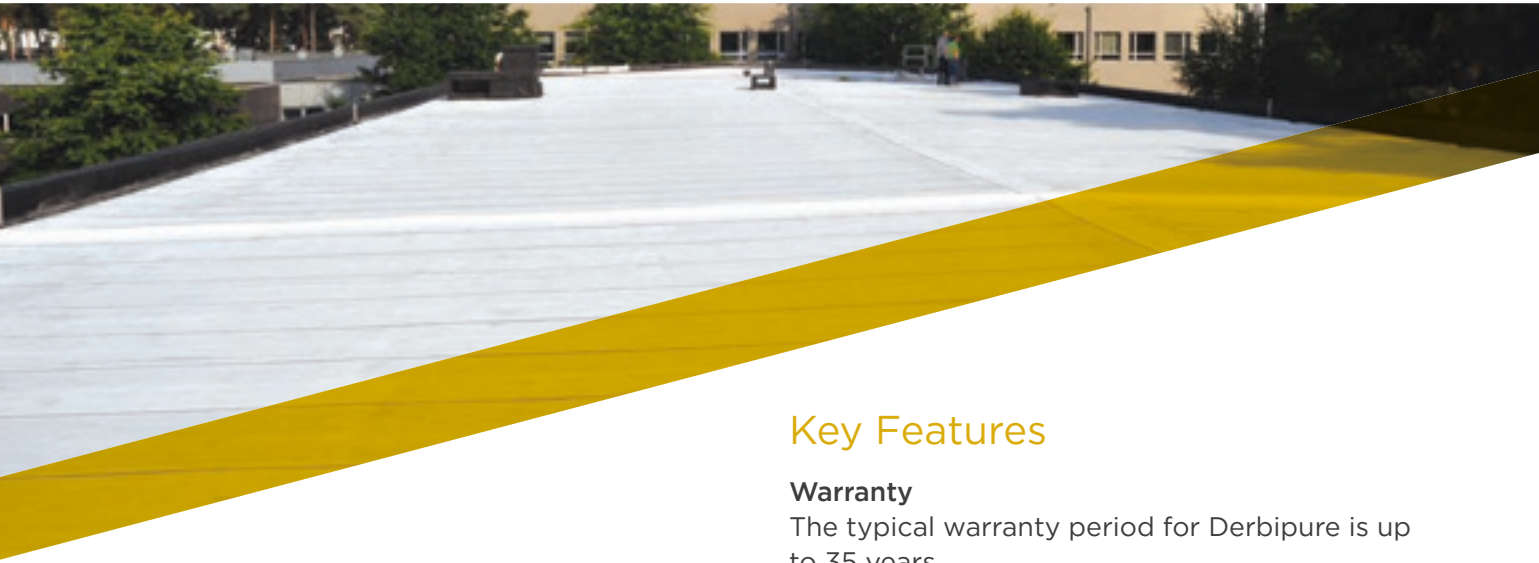
Derbicoat HP Selfix

Self-adhesive vapour check

Plywood Deck

Suitably primed with Alumasc Bitumen Primer and joints taped





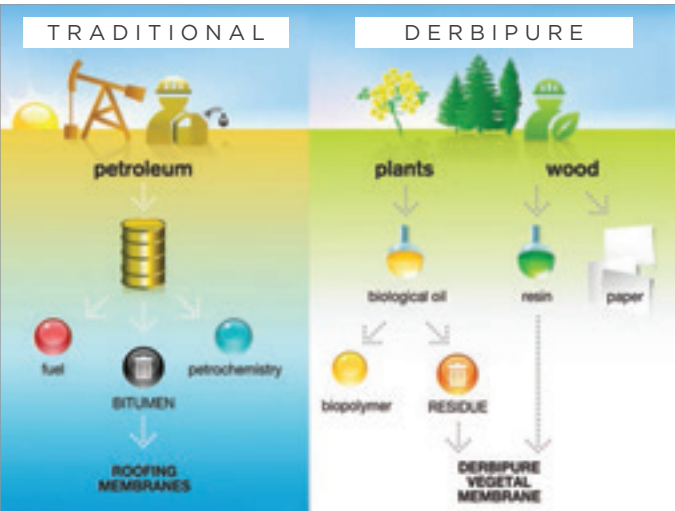
Derbipure Vegetal Membrane

Derbipure is a unique vegetal waterproofing membrane with a base of organic raw material. Composed of vegetable oils and pine resin, it is completely bitumen-free. A white acrylic coating offers maximum reflectivity whilst glass and polyester reinforcement ensures excellent resistance to puncture and UV degradation.

The Derbipure built-up warm roof is the ideal ecological solution for the roofing of new build projects, and its reflective coating brings the additional benefit of passive cooling to the building during hot weather.



Derbipure is assessed to the *Cradle to Cradle Certified™* Product Standard which is a continual improvement process that looks at a product through five quality categories – material health, material reutilisation, renewable energy and carbon management, water stewardship, and social fairness.



Key Features

Warranty

The typical warranty period for Derbipure is up to 35 years.

Cool Roofs

The reflective coating of Derbipure greatly reduces surface temperatures by reflecting up to 81% of sunlight, thereby lowering air-conditioning requirements and reducing CO₂ emissions by passive cooling of the building. Photovoltaic panels on cool roofs are up to 2% more efficient due to the lower ambient temperature.

pH Neutral Rainwater Run-off

The acrylic coating of Derbipure ensures that rainwater run-off remains pH neutral and is suitable for recycling.

Derbipure

Acrylic coated reflective vegetal cap sheet

Derbibond NT

Solvent free cold adhesive

Alumasc PIR Insulation

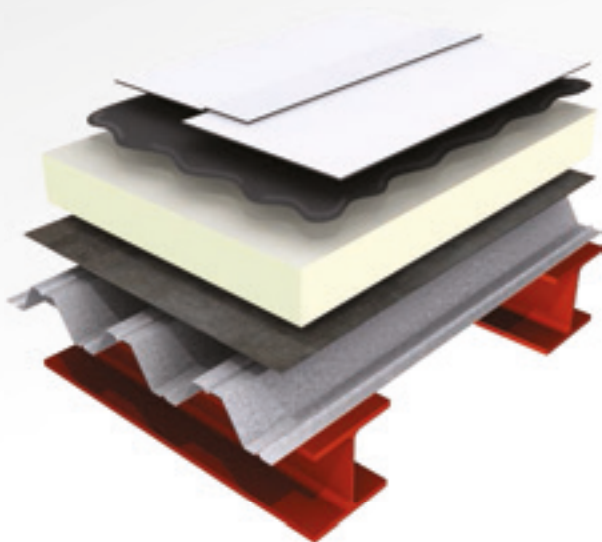
Available with glass tissue or bitumen glass tissue facings

Derbicoat NT Alu

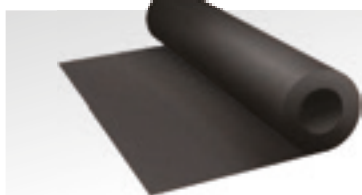
Torch-applied vapour barrier

Profiled Metal Deck

Suitably primed with Alumasc Bitumen Primer

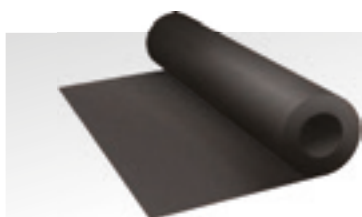


Derbigum Underlays



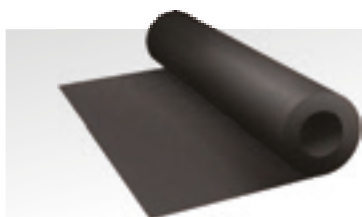
Derbicoat NT

Glass/polyester reinforced modified bitumen membrane, suitable for use as an underlay installed by torch application or in Derbibond NT cold bonding adhesive on bitumen glass tissue or glass tissue faced PIR insulation. Suitable for use with torch-applied cap sheets.



Derbicoat Selfix HP

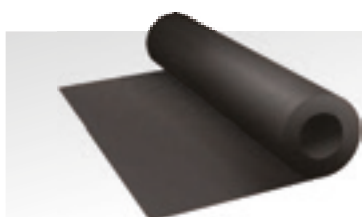
Glass/polyester reinforced modified bitumen membrane, suitable for use as a self-adhesive underlay on glass tissue faced PIR insulation, and suitable for use with torch-applied cap sheets.



Hi Ten Universal

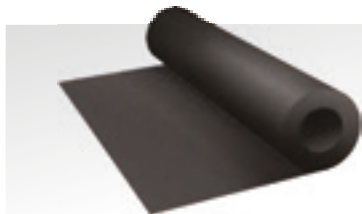
Polyester reinforced, oxidised bitumen membrane, suitable for use as an underlay installed by torch application on bitumen glass tissue faced PIR insulation, used in conjunction with torch-applied cap sheets. Can also be used as a vapour control layer.

Derbigum Vapour Control Layers



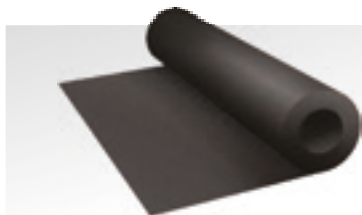
Derbicoat NT Alu

Glass reinforced, aluminium cored, APP-modified vapour barrier, suitable for installation by torch application onto concrete decks. Used in conjunction with PU adhered PIR insulation boards.



Derbicoat Selfix HP

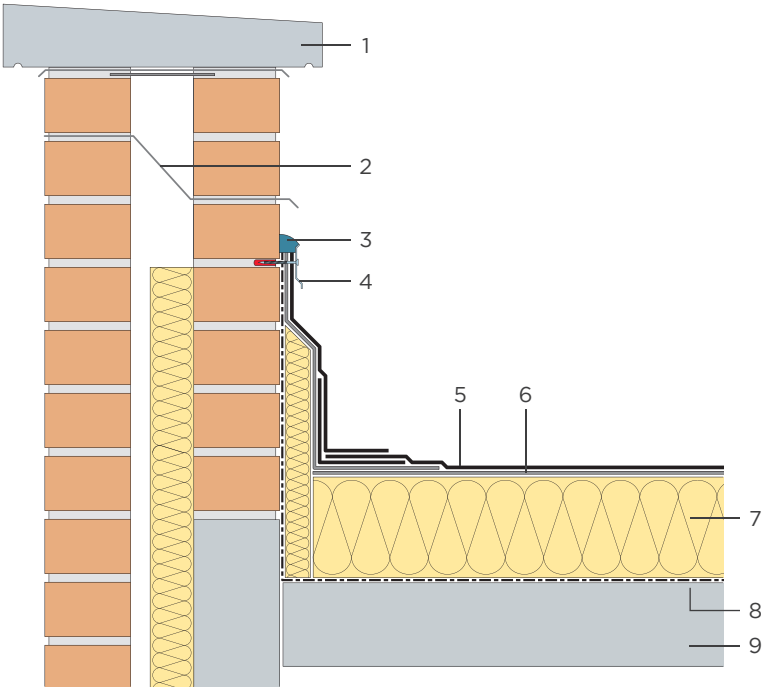
Glass/polyester reinforced modified bitumen membrane, suitable for use as a self-adhesive vapour control layer on plywood or metal decks. Used in conjunction with PU adhered PIR insulation boards.



Derbicoat NT

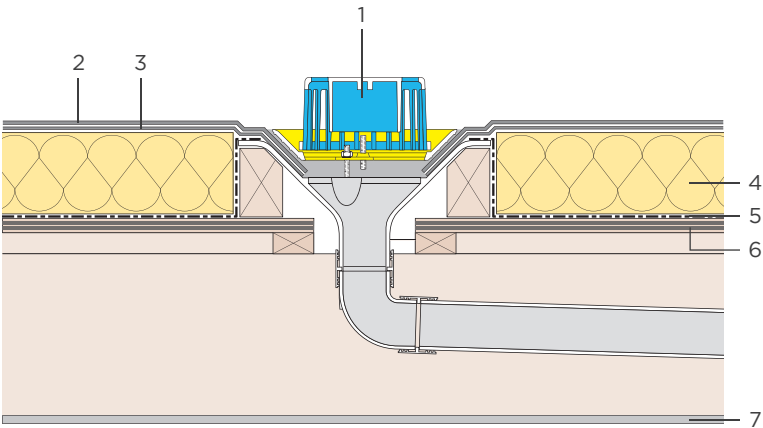
Glass/polyester reinforced modified bitumen membrane, suitable for use as a vapour control layer installed by torch application on metal decks. Used in conjunction with PU adhered PIR insulation boards.

Application Details



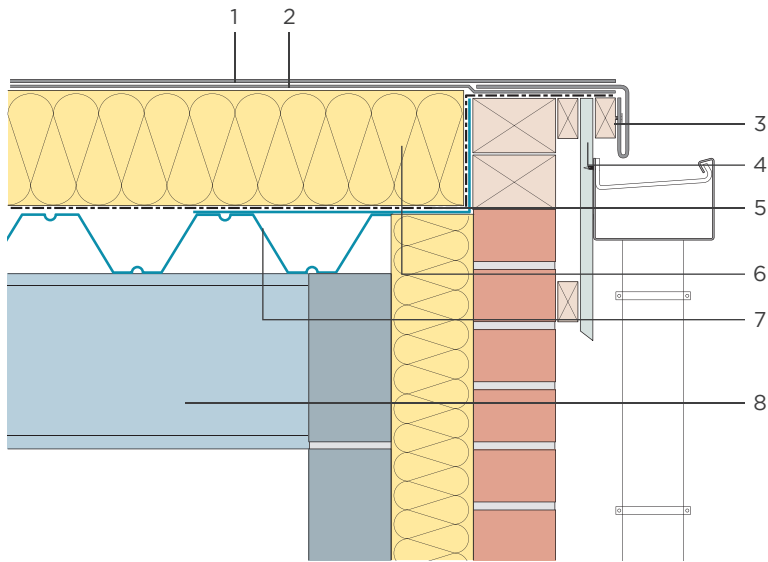
Insulated Upstand

- 1 Coping and cavity closer
- 2 Cavity tray
- 3 Derbitech HD sealant
- 4 Alumasc termination bar
- 5 Derbigum roofing membrane
- 6 Derbigum underlay
- 7 Alumasc PIR insulation
- 8 Derbigum vapour control layer
- 9 Primed substrate



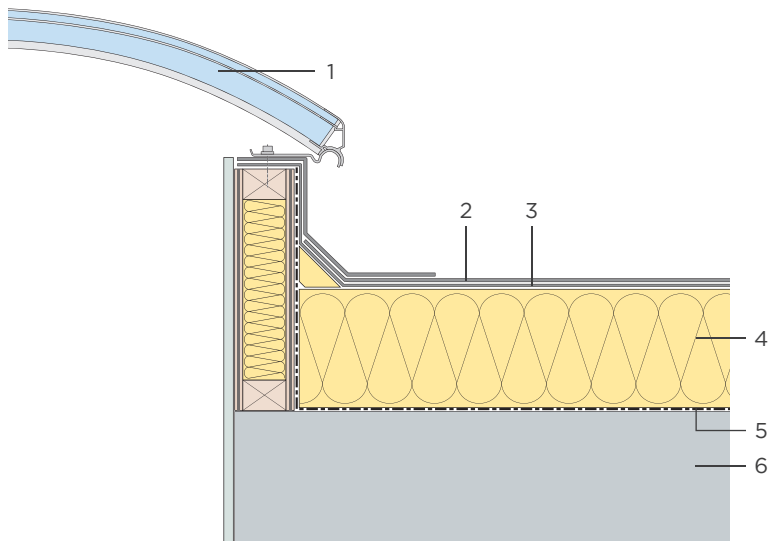
Roof Outlet

- 1 Harmer AV® outlet with domical grate
- 2 Derbigum roofing membrane
- 3 Derbigum underlay
- 4 Alumasc PIR insulation
- 5 Derbigum vapour control layer
- 6 Plywood deck
- 7 Plasterboard ceiling



Eaves Gutter

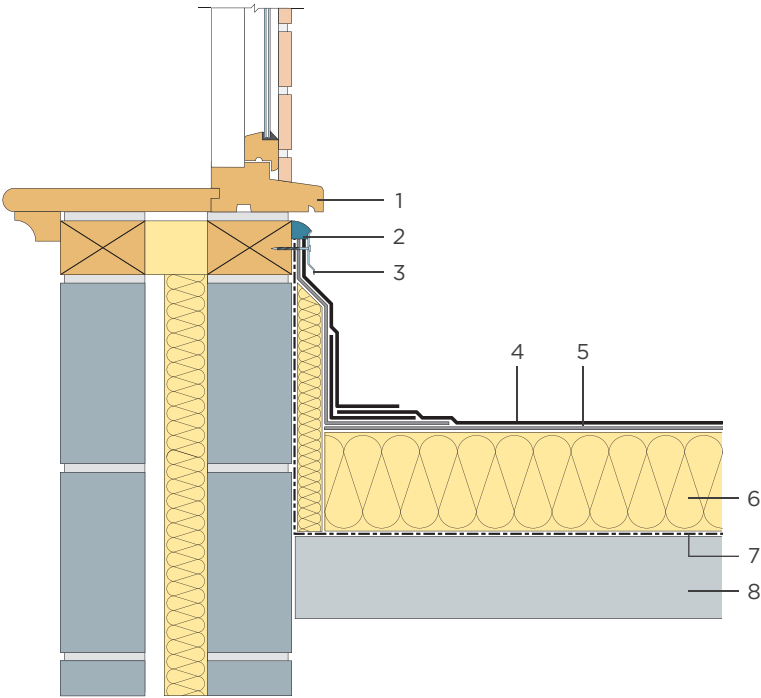
- | | |
|---|--|
| 1 | Derbigum roofing membrane |
| 2 | Derbigum underlay |
| 3 | Derbigum welted drip |
| 4 | Treated timber batten |
| 5 | Independent upstand |
| 6 | Alumasc PIR insulation |
| 7 | Derbigum vapour control layer |
| 8 | Structural steel support to metal deck |



Rooflight Upstand

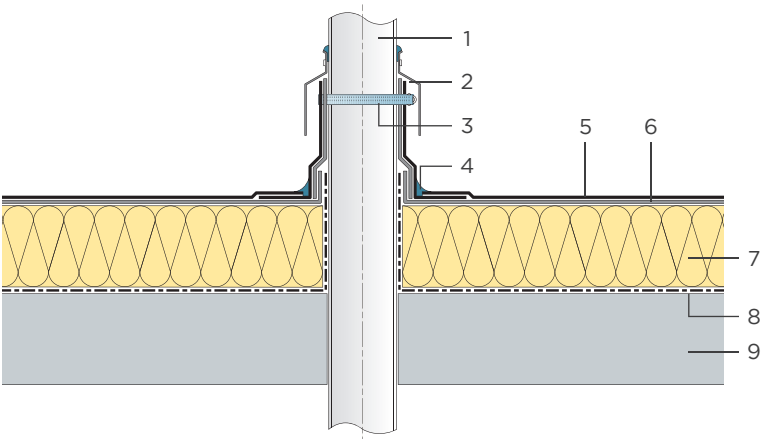
- | | |
|---|-------------------------------|
| 1 | Alumasc barrel rooflight |
| 2 | Derbigum roofing membrane |
| 3 | Derbigum underlay |
| 4 | Alumasc PIR insulation |
| 5 | Derbigum vapour control layer |
| 6 | Primed substrate |

Application Details



Door or Window Threshold

- | | |
|---|-------------------------------|
| 1 | Door or window threshold |
| 2 | Derbitech HD sealant |
| 3 | Alumasc termination bar |
| 4 | Derbigum membrane |
| 5 | Derbigum underlay |
| 6 | Alumasc PIR insulation |
| 7 | Derbigum vapour control layer |
| 8 | Primed substrate |



Cold Pipe Penetration

- | | |
|---|-------------------------------|
| 1 | Cold pipe |
| 2 | Weathering cowl |
| 3 | Retaining clip |
| 4 | Derbitech HD sealant |
| 5 | Derbigum roofing membrane |
| 6 | Derbigum underlay |
| 7 | Alumasc PIR insulation |
| 8 | Derbigum vapour control layer |
| 9 | Primed substrate |

Product Data

| Product | Characteristic | Description | Application Method | | | Size | Thickness or Coverage |
|------------------------|----------------------------|--|--------------------|-----|-----|--------------|------------------------|
| | | | T/O | S/A | C/A | | |
| Cap Sheets | | | | | | | |
| Derbigum NT Black | Black surfaced | Up to 25% recycled content | ■ | | ■ | 7.27 x 1.1m | 4mm |
| Derbigum Black | Black surfaced | Dual reinforcement | ■ | | ■ | 7.27 x 1.1m | 4mm |
| Derbigum Anti-Root | Black surfaced | FLL approved root barrier | ■ | | ■ | 7.27 x 1.1m | 4mm |
| Derbigum Olivine | Granule surfaced | CO ₂ neutralising | ■ | | ■ | 7.27 x 1.1m | 4mm |
| Derbigum Mineral | Mineral surfaced | Composite reinforcement | ■ | | ■ | 7.27 x 1.1m | 4mm |
| Derbipure | Vegetal | Non-bituminous | | | ■ | 10 x 1.0m | 3mm |
| Derbigum GC | Extra heavy duty | Civil engineering applications | ■ | | | 7.27 x 1.1m | 5mm |
| Underlays | | | | | | | |
| Derbicoat NT | Glass/polyester reinforced | Up to 30% recycled content | ■ | | ■ | 12.73 x 1.1m | 2.5mm |
| Derbicoat Selfix HP | Glass/polyester reinforced | Self-adhesive | | ■ | | 10 x 1.1m | 2mm |
| Hi Ten Universal | Polyester reinforced | Universal underlay | ■ | | ■ | 7.27 x 1.1m | 3mm |
| Insulation | | | | | | | |
| Alumasc PIR BGT | Bitumen glass tissue faced | Torch-applied systems | ■ | | | 1200 x 834mm | Various |
| Alumasc PIR GTF | Glass tissue faced | Cold-applied systems | | | ■ | 1200 x 834mm | |
| Vapour Control Layers | | | | | | | |
| Derbicoat NT Alu | Aluminium/glass reinforced | Vapour barrier with up to 30% recycled content | ■ | | | 10 x 1.1m | 3mm |
| Derbicoat Selfix HP | Glass/polyester reinforced | Self-adhesive vapour check | | ■ | | 10 x 1.1m | 2mm |
| Derbicoat NT | Glass/polyester reinforced | Vapour check with up to 30% recycled content | ■ | | | 12.73 x 1.1m | 2.5mm |
| Hi Ten Universal | Polyester reinforced | Universal vapour check | ■ | | ■ | 10 x 1.0m | 3mm |
| Primer | | | | | | | |
| Alumasc Bitumen Primer | Bitumen based | Surface primer | | | ■ | 25 litre | 125-250 m ² |

Note: Coverage rates are variable depending on prevailing conditions.

| | |
|-----|---------------|
| T/O | Torch-applied |
| S/A | Self-Adhesive |
| C/A | Cold-Applied |