



FARNWORTH GREEN

WATERPROOFING: Alkorplan Reinforced Membrane & Derbigum Black

PROJECT SIZE: 1,800m²

PROJECT LOCATION: Bolton

ALKORPLAN
BY ALUMASC



Your Complete Roofing Solution

Environmentally Focussed | Responsibly Sourced | Ethically Driven



ALUMASC
ROOFING

FARNWORTH GREEN, BOLTON



Project Overview

Located on the south side of Bolton in Greater Manchester, Farnworth Green is a new and ambitious development from Capital&Centric.

The project is intended to attract new homeowners to an area of vibrant independent business, food, drink, outdoor events, music, and a vast expanse of outdoor space. The scheme has been delivered under the new Capital&Centric "Neighbourhood" brand, and comprises 12 family homes, over 20,000 sq.ft of commercial space, a community hub, a new public square with events pavilion, and ample greenery to introduce an element of nature to the town centre. Residents also enjoy the exclusive benefits of a rooftop garden, gym, lounge and co-working space.

Farnworth Green will be used as the 'blueprint' for future redevelopments of suburban communities across the Greater Manchester Area, with more projects set to be rolled out under the 'Neighbourhood' brand. These communities promote a people-centred ethos, encouraging social interaction, relaxation, the arts, and a healthy work-life balance.

Farnworth Green links two busy streets in the area, creating easier, more pleasant routes through and around the town centre for those on bikes and on foot. It also represents the first zero emission homes in Bolton, which the developers say will save new residents significant amounts on their energy bills.

Client Brief

Due to the varied roof designs, different levels and sizes across the scheme, Vermont Construction were keen to work with a single-source supplier who could provide consistent technical expertise, and solutions that would prove to be both technically and commercially viable across the whole development.

In line with the client's environmental objectives and the project's zero emissions goal, the sustainability and life-cycle credentials of the chosen solutions were of primary consideration.

Single-Ply Solution

For the main roof areas on The Hub and Blocks A to D, Alkorplan single-ply reinforced membrane was specified due to its versatility and ease of installation across the different substrates. The flexible properties of the membrane combined with the skill and experience of Alumasc's Registered Contractors, Enviroply Roofing, made it the ideal choice for working on the complex detail interfaces presented at Farnworth Green.

Alkorplan is a multi-layered thermoplastic roofing membrane boasting a 45-year track record and the highest levels of certification and testing. It is BBA certified and achieves a fire classification of BROOF(t4) in accordance with BS EN 13501-5.

Blocks A and B presented flat roofs with pitched tiled areas. Here, Alkorplan was mechanically fixed to the plywood substrate, with PIR foil-faced flat board insulation to the field area, and a tapered insulation scheme to the gutter, in line with BS6229. The same system provided the perfect waterproofing solution for the flat roofs at The Hub, and blocks C and D, where Alkorplan's ease of application proved invaluable for detailing around the valleys and pitched tiled areas.

The lift overruns and higher roof areas of block D, benefited from the Alkorplan mechanically fixed membrane installed over the PIR foil-faced tapered insulation, designed to 1:60 to achieve a minimum falls of 1:80.

The concrete roof deck on block E used the Alkorplan fleece-backed membrane and protection layer with tapered PIR glass tissue faced insulation. This build-up created a fully adhered system beneath a Blackdown Extensive Green Roof, also supplied by Alumasc.

In total, 1000m² of Alkorplan was installed at Farnworth Green. The system conformed with the project's environmental strategy thanks to the mechanically fixed PVC, which can be easily removed at the end of its life and recycled back into the production process into new raw material. It was supplied with a 25-year warranty, and when installed and maintained according to the manufacturer's instructions, will enjoy a life in excess of 40 years.

FARNWORTH GREEN, BOLTON

High Performance from Derbigum

The areas of high foot traffic across blocks C and D, demanded the robust and well-trusted performance of Derbigum Black: Alumasc's reinforced APP polymer modified bituminous waterproofing system, which is particularly suited to buried membrane applications.

The balconies on block C (including cold balconies), presented concrete substrates, with paved surfaces on pedestals. For the warm balconies, we installed our self-adhered vapour control layer, followed by a tapered PIR glass tissue faced insulation scheme to create the required falls. Our fully bonded 2-layer Derbigum Black system was then installed over the insulation. For cold balconies, the same system but omitting the AVCL and insulation.

On block D, the above Derbigum systems were installed to the buried recreational terraced area. The plant room did not require surface finishes, so our Derbigum Charcoal membrane in mineral finish was chosen for its aesthetic appearance.

Due to the flat concrete substrate, tapered insulation schemes were designed for both areas to meet BS6229 requirements.

Derbigum is BBA certified and achieves a fire classification of BROOF(t4) in accordance with BS EN 13501-5. It has a proven track record dating back to 1967 and is subject

to the highest levels of testing and certification. It was supplied with a 35-year warranty, and when installed and maintained according to the manufacturer's instructions, will enjoy a lifespan in excess of 50 years.

Unrivalled Support

Enviroply Roofing worked alongside multiple trades on site, to coordinate the installation of the membranes with other ongoing works, in particular the installation of slate roof tiles. Synchronised timings and open lines of communication were essential, to ensure all roofing works were completed within program.

Alumasc and Enviroply worked closely with BDP Architects and construction partner Vermont Construction, to overcome complex interface details across the scheme. Regular Teams meetings and site visits were held, to explore the most robust waterproofing option for each detail.

A prime example of this was the design of the balconies and attachment of the balustrade on block C. Bespoke detail drawings were produced for the client, and it was decided that our Caltech QC Detail product, which is a cold-applied liquid, be installed as a secondary waterproofing barrier to ensure no water ingress.

In all cases, Alumasc's wide range of waterproofing solutions ensured the seamless specification of the most suitable system.

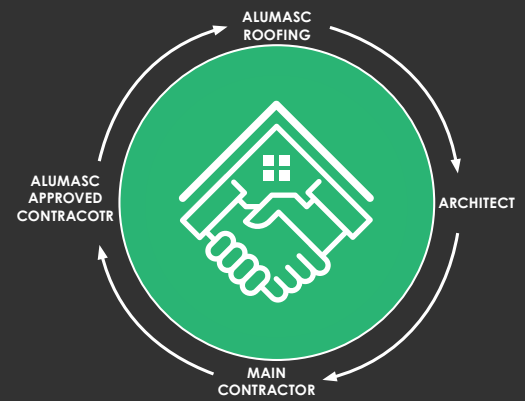


Project Information

Architect: **BDP Architects**

Client: **Vermont Construction**

Alumasc Registered Contractor: **Enviroply Roofing**



Specified system

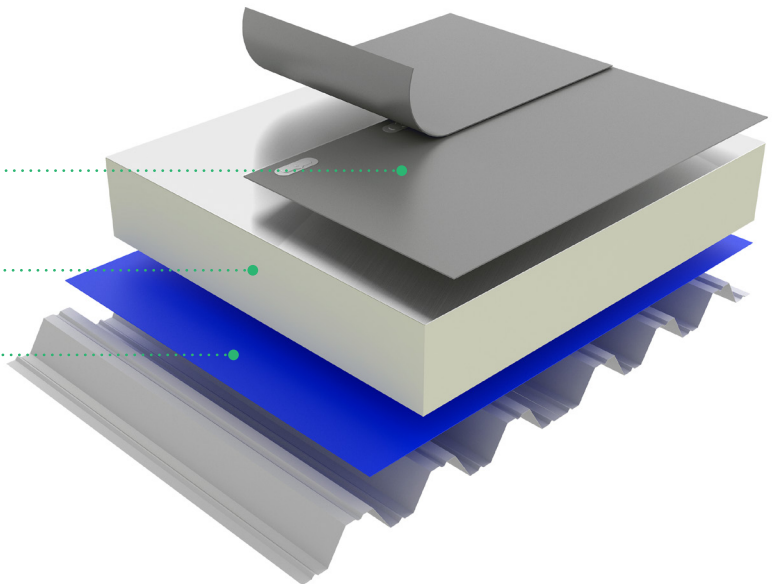
Alkorplan Reinforced Membrane

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.

Alkorplan by Alumasc Reinforced Membrane

PIR Insulation or Class A fire rated alternative

Air & Vapour Control Layer



Features & Benefits

- ✓ Lightweight, flexible, cost effective
- ✓ Speed of installation
- ✓ Life expectancy in excess of 40 years
- ✓ Warranty cover up to 20 years

Approvals

- ✓ BBA Certificate No. 10/4808
- ✓ Fire classification of B_{ROOF} (t4) in accordance with BS EN 13501-5



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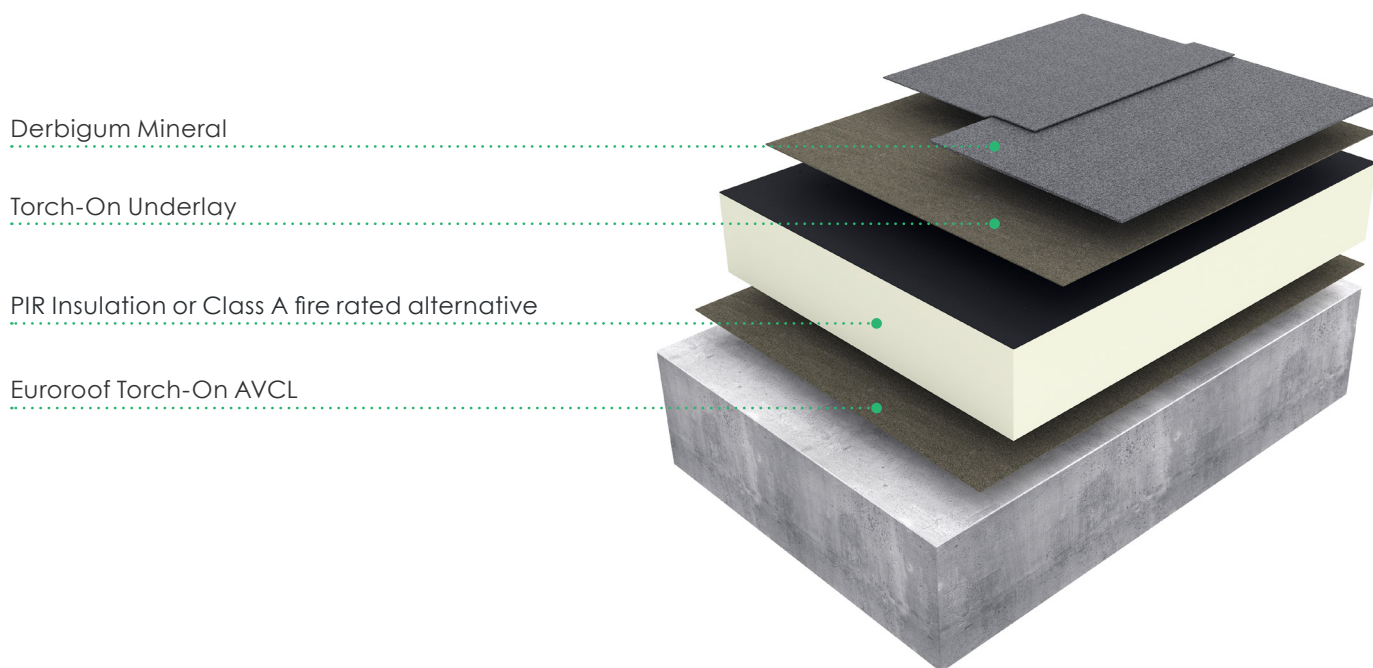


**ALUMASC
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Specified system

Derbigum Mineral Membrane

Derbigum High Performance Roofing Systems comprises of premium range of reinforced APP polymer modified bituminous waterproofing membranes, underlays, insulation boards and air and vapour control layers (AVCL). Derbigum has a proven track record since 1967 and is subject to the highest levels of certification and testing.



Features & Benefits

- ✓ Flexibility of product specification
- ✓ Robust, proven durability
- ✓ Life expectancy of at least 50 years
- ✓ Warranty cover up to 35 years

Approvals

- ✓ BBA Certificate No. 86/1593
- ✓ Fire classification of B_{ROOF} (t4) in accordance with BS EN 13501-5

