



bluroof

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Detailed description

ABG bluroof provides stormwater attenuation capacity at source within the green, ballasted or paved roof, or podium deck construction of a development.

It comprises a combined drainage and attenuation void within the roof structure and a series of roof restrictor chambers which sit over each roof outlet. The chambers are designed to release the attenuated water at a controlled discharge rate as permitted in the planning consent of the site. Designing a blue roof in this way allows storage capacities suitable for up to a one in 100 year storm event, plus an allowance (typically 30%) for the effects of climate change, to be achieved. The water is filtered several times as it passes through the system removing suspended solids thus improving the quality of water at discharge. This stored water, as with a 'traditional' storage system, can be released at a controlled rate or even used as grey water or irrigation for the vegetation across the development.

ABG creative geosynthetic engineering

Unit E7
Meltham Mills Industrial Estate
Meltham Mills Road
Meltham
West Yorkshire
HD9 4DS

Tel: +44 (0)1484 852096

www.abgltd.com
geo@abgltd.com

The bluroof system consists of two key components:

- A drainage geocomposite system with integral filter geotextiles which attenuates excess water not absorbed by the vegetation in soft landscape areas, or run off from ballast or paving, in hard landscaped areas. Water filters through the green roof and builds up in the drainage void formed by the geocomposite layers below.
- This water is gradually dispersed through the zero falls system to the restrictor chamber and discharged to the roof outlet at the rate permitted for the site. The storm water attenuation requirements are met within the roof construction; therefore the need for underground storage can often be reduced/eliminated.

Features and benefits:

- Controlled storage and release of stormwater in line with SuDS best practice/ legislation.
- Reduction in roof penetrations and rain water outlets (RWO's) required.
- Overall time and cost savings versus traditional methods.
- Removal of excavated material.
- Less disruption on site.
- Often no need to install underground attenuation tanks.
- Reduced carbon footprint.
- Zero fall; no need to screed to fall.
- SuDS schemes; provides source control.
- Contributes to the BREEAM rating and Code for Sustainable Homes.
- Improves quality of discharged stormwater.

It can be utilized beneath many types of finish including intensive and biodiverse green roofs, ballasted roofs and beneath paved surfaces at both



roof and podium levels.

Applications:

- Commercial and residential developments.
- Supermarkets.
- Distribution centres.
- Schools and colleges.
- Shopping centres.
- Underground car parks.
- Podium decks.
- Housing.
- Flats.
- Office blocks.

Important Note about Specifying:

- The bluroof system is compatible with hot melt or cold liquid applied water proofing systems.
- Only XPS insulation should be used within the bluroof specification.
- For specific advice on water storage requirements contact ABG technical department.

Product guidance - As Standard

Blue roof comprises:

- Restrictor chamber access: The control function which restricts the water flow off the roof or podium areas to the agreed discharge rates.
- Attenuation and drainage void: Water falling on the roof surface percolates through the roof build up to the geocomposite layer. In periods of low rainfall it simply flows through the void to the restrictor chamber and into the roof outlet. When rain fall exceeds the permissible discharge the void is utilized to attenuate the excess water and the discharge rate is controlled by the restrictor chamber.
- Up to three geocomposite drainage and attenuation layers with integral geotextile wrap: Water passing through this layer is filtered to prevent any solid particles from entering the system.

Product specification

Manufacturer

- Name: ABG creative geosynthetic engineering
- Web: www.abgltd.com
- Email: geo@abgltd.com
- Tel: +44 (0)1484 852096
- Fax: +44 (0)1484 851562



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- Address: Unit E7, Meltham Mills Industrial Estate, Meltham Mills
Road, Meltham, West Yorkshire HD9 4DS

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