

# **Green Roof Extensive**

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# **Detailed description**

Extensive green roofs are the most common type and characteristically consist of a shallow layer of growing media; typically between 60–120 mm deep. This is planted with a variety of drought tolerant hardy plants. This type of roof is relatively self-sufficient; they are not designed or constructed with the intention of being trafficked by pedestrians or used as amenity areas.

Because access to the roof tends to be limited and with safety equipment usually in the form of a fall arrest system, making annual maintenance difficult, the choice of vegetation should be selected with this in mind with low maintenance planting such as sedums, alpines and indigenous species recommended.

An extensive green roof requires a combination of efficient drainage and water attenuation in order to allow the ecology to flourish. Roofdrain allows the storage of water within the cuspates of the of the HDPE core whilst facilitating the efficient drainage of any excess water away from the roof. This helps prevent the growing media from drying out during dry periods and from becoming waterlogged during wet periods. When used within a green roof construction it provides a versatile system for the collection of rain water at the base of the growing medium and for the prevention of water pressure on the structural waterproofing whilst allowing oxygen and nutrients to get to the roots of the plants.

#### Green Roof Intensive comprises:

### - Growing media:

ABG peat free media derived from sustainable, 100% recycled, UK sourced materials. Using a specifically developed growing media can help provide the right growing environment for the selected vegetation and also reduce the load on the roof. The growing media can also be adjusted to support specific design requirements like calcareous or iricatious applications

# - Vegetation:

Specifically selected to suit the final finish requirements of the client/ end user. On Extensive green roofs low maintenance varieties such as mosses, herbaceous plants, sedums wildflowers and grasses tend to be used.

## - Geotextile fibre fabric:

Laid beneath substrate to prevent fines filtering through to voids below.

#### - Roofdrain:

Consists of three components bonded together to create a single element. A filter textile which is bonded to the upper part of the reservoir board to provide a separation layer which filters particles and fines down to 100 microns ( $\mu$ m) whilst preventing the substrate from any ingression into the reservoir layer.

A drainage/ reservoir board which attenuates and retains the optimal

ABG creative geosynthetic engineering



# ABG creative geosynthetic engineering

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www.abgltd.com geo@abgltd.com amount of water for the success of the plants and biodiversity of the roof, The core is perforated to allow the excess water to drain through into the flow channels beneath, preventing pooling and oversaturation of the plants. Finally, a protection fleece is bonded to the underside of the reservoir/drainage board. It protects the waterproofing layer onto which the Roofdrain is placed.

### Features and benefits:

- · Added protection for waterproofing layer.
- · Scores BREEAM points.
- · Reduces whole life costs of the building and its energy usages.
- · Part of SuDS solutions acting as the first stage in the treatment train.
- · Can create a useable space.
- · Creates a useable space.
- · Creates habitat to improve biodiversity.
- · Noise reducing.
- · Extracts pollutants and improves air quality.

# **Product guidance - As Standard**

#### Roofdrain 20:

- Reservoir capacity: 5.5 l/m².
- Below substrate layers 75 mm down including extensive and brown roofs.

#### Roofdrain 25:

- Reservoir capacity: 4.3 l/m².
- Typical applications: Standard grade product. Below substrate layers 150 mm down including extensive and brown roofs. It is particularly useful on pitched roofs due to the profile of the cone shaped cuspates.

### Roofdrain 40:

- Reservoir capacity: 12 l/m².
- Used to store additional rainwater allowing greater diversity of vegetation.

### Roofdrain 60:

- Reservoir capacity: 23 l/m².
- Typical applications: Used to store large volumes of rainfall and significantly reduce run-off.

## **Product specification**

# Manufacturer

- Name: ABG creative geosynthetic engineering



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Product reference		Roofdrain 20 - 20 mm thickness. Roofdrain 25 - 25 mm thickness. Roofdrain 40 - 40 mm thickness. Roofdrain 60 - 60 mm thickness.
Engineered growing media		
Vegetation/ Surfacing		
Root barrier		Required Not required