

SUBSTRATE GREEN ROOF SYSTEMS

Example System Configurations

Substrate-based extensive green roofs can incorporate a variety of vegetation and hard landscaping finishes.

Vegetation Mats

The installation of a pre-grown vegetation mat allows instant coverage of the roof. Native wildflower blanket, Bauder WB, meets the growing demand to satisfy the requirements of BREEAM and should meet the biodiversity action plan for the site.

Bauder SB vegetation is a mature sedum blanket with a broad mix of sedums, 12-14 species, and is typically grown for a year prior to installation for excellent coverage.

Plug Planting

This method gives the client both a much greater choice of plant species and the opportunity to plan the layout. The individual immature plants or 'plugs' are planted into the substrate, which can then grow on to give good cover over the next few years.

Seeding

An economical and practical method for vegetating larger roof areas. Our seed mixes are designed for the harsh conditions on a roof. Plant establishment and coverage will take 18-24 months, depending upon the time of year sowing takes place and the weather conditions during the period of establishment.

Biodiverse Options

Bauder's range of seed, plug and blanket can be used in combination to create the matrix of habitat and surface finishes required. Bauder has allied with Buglife (the invertebrate charity, buglife.org.uk) to produce roofs designed with dead wood, sand/stone piles as well as dew ponds etc to give a truly sustainable insect friend environment.



Vegetation Mat



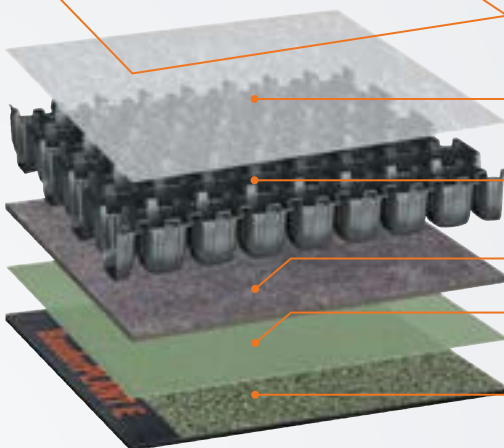
Seeded Roof



Plug Plants



Biodiverse Habitat



Bauder Filter Fleece

filtration layer that prevents substrate fines from washing into the drainage layer.

Bauder DSE40

40mm water storage layer that provides multi directional drainage.

Bauder FSM600 Protection Mat

recycled polyester and polypropylene fibre mix.

Bauder PE Foil (specified in some projects)

polyethylene foil separation and slip layer manufactured from recycled granules.

Bauder Waterproofing (all four types are suitable)

shown here with root resistant, SBS modified bitumen membrane reinforced with 250g/m² recycled spunbond polyester.

www.bauder.co.uk/technical-centre

SYSTEM SUMMARY

BauderGREEN WB Wildflower Blanket System

Biodiverse, native wildflower green roof solution

The pre-grown native wildflower blanket (BauderGREEN WB), allows the quick establishment of a green roof. The blanket typically has 40 varieties of British native wildflowers with less than 10% grass species. Collected in line with the Flora Locale Code it is designed to give a long flowering season (RHS perfect for pollinators and Buglife approved). The system is fully GRO and FLL compliant. A comprehensive range of guarantees are available for this system.



Product	Description	Thickness	Saturated weight
1 BauderGREEN WB native wildflower blanket*	Includes up to 40 of native wildflowers and herbs with less than 10% grass species. RHS Certified perfect for pollinators.	30mm blanket only	30kg/m ²
2 BauderGREEN SUB-BM UK biodiverse substrate	Lightweight growing medium for biodiverse green roof planting schemes manufactured to GRO and FLL guide lines and tested to BS8616.	100mm	120kg/m ²
3 BauderGREEN FV 125 100 filter fleece	Filtration layer that prevents substrate fines from washing into the drainage and water storage layer.	1mm	0.13kg/m ²
4 BauderGREEN DSE 40 drainage layer	DSE 40 is a light weight water storage and drainage layer made of 100% recycled HDPE.	40mm	15.3kg/m ² (water filled)
5 BauderGREEN FSM 600 protection layer	Is 100% recycled Polyester and polypropylene fibre mix protection layer to prevent mechanical damage to the underlying waterproofing.	4mm	3.6kg/m ²
6 Bauder's underlying waterproofing system	Various options for bituminous membrane, Hot Melt, Single ply or Cold applied liquid systems.	Not included	Not included
Green Roof System Build up (fully saturated, excludes waterproofing)		175mm	169kg/m²

	Flora Locale Membership
	Royal Horticultural Society Perfect for
	Endorsed by Buglife (the invertebrate charity)

*Bauder also produce sedum blanket solutions

Where to specify:

Ideally suited to native green roofs which are clearly visible and need a high aesthetic or where the quick establishment of vegetation is important.

Please note: All green roofs require water during times of drought. Bauder recommend that the watering and maintenance of this roof is considered and addressed during its design.

UNITED KINGDOM

Bauder Ltd
70 Landseer Road, Ipswich, Suffolk IP3 0DH
T: +44 (0)1473 257671 E: info@bauder.co.uk
bauder.co.uk

IRELAND

Bauder Ltd
O'Duffy Centre, Carrickmacross, Co. Monaghan
T: +353 (0)42 9692 333 E: info@bauder.ie
bauder.ie

ANNUAL MAINTENANCE

A green roof is a real asset to a building and for it to continue to deliver the environmental and aesthetic benefits for which it was originally designed, it is important to carry out maintenance on a regular basis.

A well maintained green roof will:

- Look at its best and ensure the optimum range of species for maximum coverage and longer flowering periods.
- Sustain healthy plant growth to provide a habitat for wildlife.
- Improve air quality by reducing airborne dust and help local air cooling.
- Offer protection to the waterproofing beneath.
- Help conserve and control rainwater runoff.
- Maximise the building's asset value.



Common Problems

Lack of Nutrients can lead to unhealthy plants and loss of vegetation coverage, resulting in bare patches and a reduction in the variety of species present.

Invasive Plants or Weeds, Fallen Leaves and Debris can spoil the aesthetic appearance and function of your green roof, and in some circumstances can even damage the waterproofing. The removal of leaf litter from overhanging trees and other accumulated debris is essential to prevent plants from being suffocated.

Impeded Drainage can be detrimental to plant health and roof performance. For example, when the growing medium is not free-draining it can become wet and lead to root rot or invasive grasses and weeds. Regular maintenance and inspection checks ensure that the outlets and areas surrounding outlet inspection chambers remain clear and perform as intended.



Health & Safety Considerations

Following health and safety best practice is essential to all successful green roof maintenance and should be carried out by fully trained personnel who should be:

- Familiar with working at rooftop levels.
- Able to carry out risk assessments.
- Inspecting mansafe equipment prior to use.
- Competent users of all apparatus.
- Wear all necessary personal protective equipment.

