Eco Green Group

Unit 3 Rays Barn Farm Ingatestone, Essex

CM4 9EH

Project Name: 14 Bedford Row

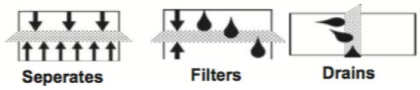
Technical Submission

EGR Sedum Blanket System

- EGR 20mm Drainage Board
- EGR Filter Fleece
- EGR Growing Medium
- EGR Sedum Blanket
- EGR 20-40mm Cobbles
- EGR 80mm Aluminium Trim

Installers and Manufacturers: Eco Green Group

Prepared by : Kim Wilkinson
Date : 02/05/25
Rev : 00



Product Data Sheet

Drainage Board with Filter Fleece

Product code: EGR DBR20 **Reference Standard**: EN 13252, CE

Description

A rigid and durable 20mm drainage board multi-functionally designed to act as both a drainage layer and for water-retention. EGR DBR20 allows for excess water to drain away therefore preventing the water logging of the substrate. The reservoir properties allow the water storage cells to retain additional water that can be diffused to the plants during prolonged dry periods (more than six weeks without rain). EGR DBR20 performs in line with requirement set forth by German FLL Guidelines and The GRO Green Roof Code.

Composition

High Density Poly Ethylene (HDPE) bonded to a geotextile filter.

Application

Suitable for sedum, wildflower, biodiverse roofs, and podium and roof garden applications as part of an EGR system. The product is resistant to root penetration.

Fire Compliance

Product has been tested as part of a system to BS EN 13501-5:2016 and compliant to Broof(t4) classification.

Packaging

Boards are stacked on a pallet with a quantity of up to 200.

Dimensions

2000 x 1000 x 20mm (L x W x H).

Testing

Tested to UKAS accredited ISO 17025 laboratory to all mechanical properties.

Technical Data	Test	Unit	Mean Values		
Mechanical Properties - Geocomposite					
Compressive strength	EN ISO 25619-2	kPa	115		
Tensile strength (MD/CMD)	EN ISO 10319	kN/m	17		
Static puncture (CBR)	EN ISO 12236	kN	2.6		
Hydraulic Properties – Geotextile					
Water permeability V_{H50}	EN ISO 11058	l/(m²•s)	100		
Apparent opening size	EN ISO 12956	µm	80		
Hydraulic Properties - Geocomposite					
Water flow capacity in the plant	EN ISO 12958	l/(m²•s)	(i=1)	(i=0.5)	(i=0.1)
@20kPa			10.0	8.0	5.0
@100kPa			9.0	6.0	3.5
@200kPa			5.0	2.0	1.0
Water storage capacity		l/m²	4		
Physical Properties					
Thickness @ 2kPa	EN ISO 9863-1	mm	21		
Standard colour – Cuspate			Black		
Polymer - Cuspate			HDPE		
Polymer - Textile			PP		

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Product Data Sheet

Biodiverse Growing Medium

Product code: EGR GMBIO **Reference Standard:** Peat-free product and test results are compliant to BS 8616:2019

Description

The greater amount of sand particles in this substrate allows it to hold onto a greater volume of water compared to EX1, but still allows rapid drainage when required. Due to the greater sand content, this substrate is not suitable for very lightweight applications. As a results of its relatively free drainage nature, temporary irrigation may be required to assist plant establishment.

Application

Designed specifically for semi-intensive green roofs, this substrate should be installed at a depth of 120-180mm. It is perfectly suited for biodiverse roofs, which require substrate to be installed at varied depths across the structure in order to increase variability.

Standard

EGR Biodiverse Substrate meets and exceeds all present G.R.O guidelines.

Properties

Bulk density oven dried (g cm-3)	0.99
Bulk density at 10% VMC (g cm-3)	1.08
Bulk density at field capacity (g cm-3)	1.40
Field Capacity (% v/v)	40.0
Particle Density (g cm-3)	1.38
Total Porosity (%)	71.9
Porosity at Field Capacity (%)	39.5
Effective Porosity (%)	32.3
Saturated Hydraulic Conductivity (mm min-1)	151

Biodiverse Growing Medium

EGR Biodiverse Mix engineering characteristics compared to FLL standards for Extensive greening

Substrate Density

Bulk Density when oven dried (g cm^{-3})	0.99
Bulk Density at 10% VMC (g cm^{-3})	1.08
Bulk Density at field capacity (g cm^{-3})	1.40
Particle Density (g cm^{-3})	1.38

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Product Data Sheet

Biodiverse Growing Medium

Product code: EGR GMBIO **Reference Standard:** Peat-free product and test results are compliant to BS 8616:2019

Water & Air

Field Capacity (% v/v)	40.0
Total Porosity (%)	71.9
Porosity at Field Capacity (%)	39.5
Effective Porosity (%)	32.3
Saturated Hydraulic Conductivity (mm min-1)	151

Chemical

Organic Matter (%)	3.7
pH	8.2
EC (mS cm^{-1})	2.8

Plant Available Nutrients

Nitrogen (mg l^{-1})	12.3
Phosphate (mg l^{-1})	>165
Potassium (mg l^{-1})	>241

Particle Size Distribution

Stones (>8 mm)	1.7
Coarse gravel (8-4 mm)	16
Fine gravel (4-2 mm)	2.6
Very coarse sand (2-1 mm)	7.4
Coarse sand (1.0-0.5 mm)	21.0
Medium sand (0.5-0.25 mm)	33.9
Fine sand (0.250-0.125 mm)	13.2
Very fine sand (0.125-0.050 mm)	0.6
Silt (0.050-0.002 mm)	2.3
Clay (<0.002 mm)	1.4

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Product Data Sheet

Sedum Blanket

Product code: EGR SB

Description

Up to 9 carefully selected sedum species as part of a pre-cultivated vegetation blanket. EGR SB performs in line with requirement set forth by German FLL Guidelines and The GRO Green Roof Code.

Composition

The base is a geotextile fabric carrier membrane with 25mm substrate base on top in which the vegetation is embedded.

Application

Pre-grown for use on extensive green roofs, podiums and roof gardens. The mixed species incorporated within the blanket are drought tolerant. To be used in conjunction with other components to create a low maintenance sedum green roof system.

Fire Compliance

Product has been tested as part of a system to BS EN 13501-5:2016 and compliant to Broof(t4) classification.

Packaging

Supplied in rolls on pallets

Technical Data	Value	Unit
Total height	20-50 plant height	mm
Weight (dry)	18	kg/m^2
Weight (saturated)	25	kg/m^2
Consignment size	40 per pallet	m^2 (typical)
Size	2.1 x 1	m^2
Colour	Variation due to mixed species	

Sedum blanket installation

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Sedum Species

Sedum Album

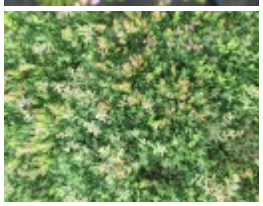
Sedum Hybridum

Sedum Floriferum

Sedum Ellacombianum

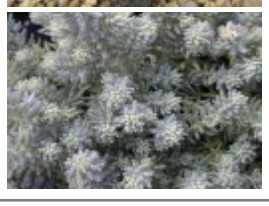
Sedum Selskianum True

Sedum Pulchellum

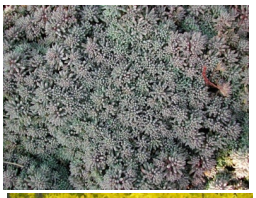


Sedum Reflexum

Sedum Middendorfianum



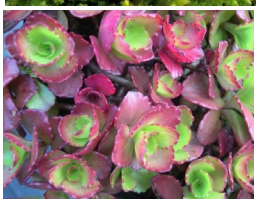
Sedum Montanum



Sedum Montanum Orientale

Sedum Sexangulare

Sedum Acre



Sedum Spureum ‘Coccineum’

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Product Data Sheet

River-Washed Cobbles 20-40mm

Product code: EGR COB

Description

River-washed naturally rounded cobbles. EGR COB performs in line with requirement set forth by German FLL Guidelines and The GRO Green Roof Code.

Composition

20-40mm rounded stones

Application

Rounded cobbles are installed, as part of a green and biodiverse roof system, to prevent the spread of fire.

Cobbles to be installed around all penetrations and perimeters, this includes, but not exclusive to, rainwater outlets, soil pipes and rooflights. A fire break of 300mm-500mm width is the requirement, on roofs that are over 40m in length the fire break width to be 1m

Fire Compliance

Product has been tested as part of a system to BS EN 13501-5:2016 and compliant to Broof(t4) classification.

Packaging

Available in bulk bags and 25Ltr sacks

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Product Data Sheet

Aluminium Trim – 80mm

Product code: EGR TRM80

Description

Retention edging that mitigates contamination of growing medium/substrate and plant species from the cobble border and thereafter drainage. It is perforated to allow water to drain through to outlets and gutters.

It also completes the installation with an aesthetically neat finish by keeping the green/biodiverse roof system components in place.

EGR TRM80 performs in line with requirement set forth by German FLL Guidelines and The GRO Green Roof Code.

Composition

Manufactured from lightweight Aluminium – powder coating is available upon request.

Application

Suitable for sedum, wildflower, biodiverse roofs, and podium and roof garden applications as part of an EGR system. A flexible design can be supplied to accommodate curved areas.

Packaging

Delivered on pallets - shrink wrapped. Quantity is dependent on requirement.

Technical Data	Value	Unit
Thickness	2	mm
Length	2400	mm
Height	80	mm
Base	60	mm
Colour	Mill finish (unpainted)	

Turn over for trim diagram

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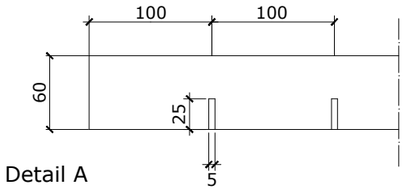
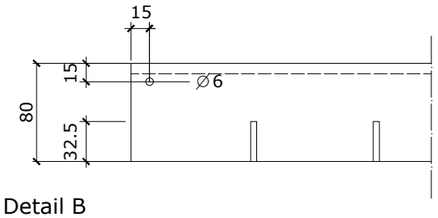
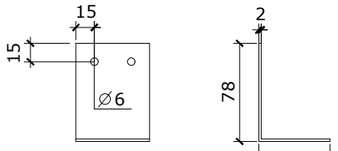


Detail A
Scale 1:5

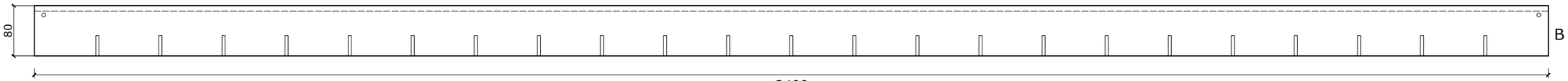


Detail B
Scale 1:5



Butt Strap

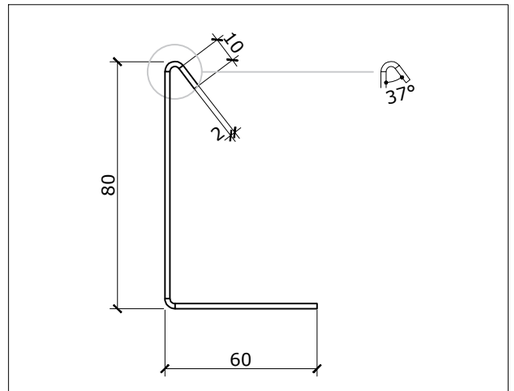
Bottom View
Scale 1:7



Rear View
Scale 1:7

Lateral View
Scale 1:7

3D View
Aluminium Trim 80 x 60 x 2



Section View

ECO GREEN GROUP	3 Rays Farm Barns Roman Road - Ingatestone Essex CM4 9EH		
Detail Name: Aluminium Trim 80mm		Scale: As Shown@A3	Comments: -N/A
Drawing Number: EGR-0001-AT-80		Drawing Revision: 02	

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