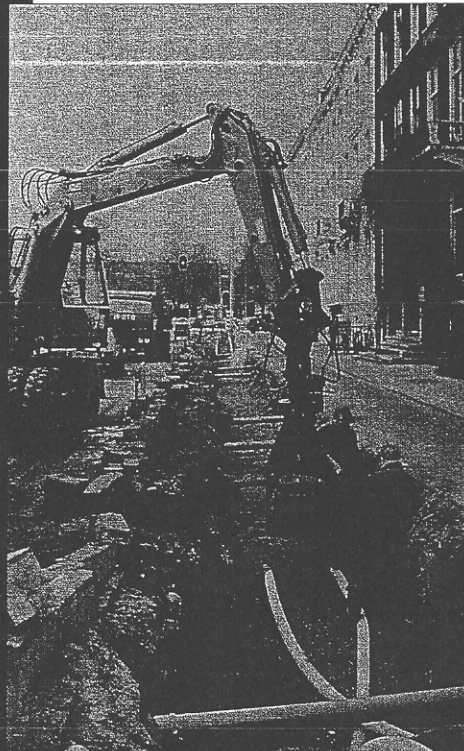


Application

The merit of tree soil is in its ability to transfer oxygen to the trees roots under hard surfaces. So where open soil beds are used there is no requirement for tree soil. However under pavements where it is not possible to use normal top soil, tree soils offer the possibility of extending the tree pit or trench in whatever direction is most suitable on site. For example, on new schemes it may be possible to dedicate a strip of ground along the roadside. This will allow the tree pit to effectively run the whole length of the road underground. Or, on existing paved areas the tree pit can be extended to a convenient change in surface detail.

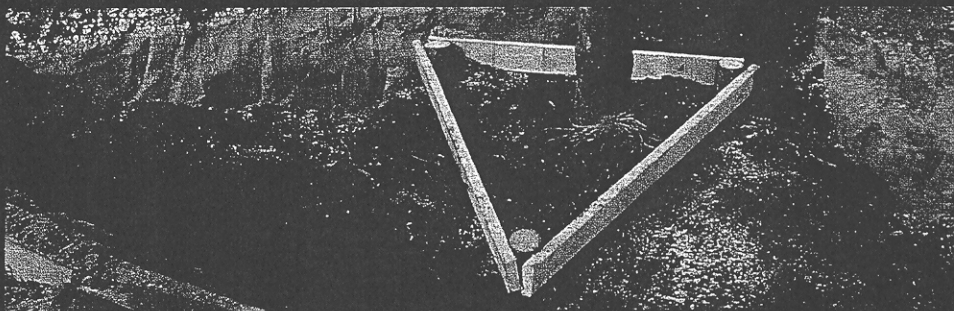
Excellent results have also been achieved where tree soil has been introduced around established trees which are showing stress through poor rooting conditions. In these cases the pavement is lifted and the existing soil is carefully removed to avoid damaging tree roots. The tree soil is then backfilled and the surface re-instated.



Trench being backfilled in 1983



Same pavement 1993



urban soils

Urban Soils Limited
High Legh Estate Office
Knutsford
Cheshire WA16 0QS
Tel: 01925 757800
Fax: 01925 756599



Appendix 05: Bauder Living Roofs

PRODUCT DATA SHEET

Bauder Flora Seed Mix Range

A range of UK provenance seed mixes with additional Tackifier and Mycorrhizal fungi. Designed to produce high germination rates and plant establishment on Green Roofs.

Intended Use

Bauder Flora Seed Mixes are intended to be used on Biodiverse Green Roofs to give the highest establishment rate. The mix contains UK provenance seed as per Flora Locale guidelines. All mixes carry the RHS Perfect for Pollinators mark and have been endorsed by Buglife. The product is installed over Bauder (FLL Compliant) Biodiverse Substrate. The species mix varies with the type of habitat the mix is designed for.

**PRODUCT INFORMATION AND TECHNICAL PERFORMANCE****Flora 3, 5, 7, 9, 11 Seed Mixes**

Characteristic	Unit	Value
Seed Source		Flora Locale Compliant
Typical Sow Rate	g/m ²	100
Species	Nos	See Table on following page
Storage	months	Up to 12 months in Cool, Dark, Dry environment
Spreading Method		Bauder Spreader Trolley or by hand

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PRODUCT DATA SHEET

Name	Sub-Heading	Description	No. of Species	Wild Flowers	Annuals	Sedge & Grasses	Sedum	Coverage	RHS P for P	Laval Food
Bauder Flora 3 Seed Mix GB 50120403	General - BioSOLAR	A broad mix of low growing and some shade tolerant species ideal, for most roof environments. It is also the mix Bauder Recommend for BioSOLAR installations.	49	31 (65%)	8 (20%)	8 (15%)	2	100g per m ²	35	12
Bauder Flora 5 Seed Mix GB 50120405	Urban	A mix of species ideal for city environments. The plants chosen are able to absorb pollution and CO ₂ and give a suitable environment for insects and invertebrates.	38	28 (80%)	6 (10%)	2 (10%)	2	100g per m ²	34	9
Bauder Flora 7 Seed Mix GB 50120407	Chalk Grassland	The mix contains many of the key wild flower species found on the Downs and other Chalk Grassland.	28	23 (85%)	None	5 (15%)	0	100g per m ²	22	11
Bauder Flora 9 Seed Mix GB 50120409	Coastal	The species mix reflects the harsh environment found around Britain's coastline, it contains species that are able to cope with higher winds and a more saline environment.	24	14 (75%)	3 (10%)	4 (15%)	3	100g per m ²	20	8
Bauder Flora 11 Seed Mix GB 50120411	Scottish	This mix contains a range of common, Scottish green roof species. All the seeds are certified to be of Scottish Provenance. It enables Scottish sites to have truly native vegetation.	33	26 (75%)	3 (15%)	2 (10%)	2	100g per m ²	29	6




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PRODUCT DATA SHEET

CERTIFICATION AND ENVIRONMENTAL INFORMATION	
International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany) ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany)
	Flora Locale - Membership
	Royal Horticultural Society – Perfect for Pollinators
	Endorsed by Buglife (the invertebrate charity)

INSTALLATION GUIDANCE
<p>Normally installed directly onto saturated Biodiverse Substrate. Care should be taken not to traffic the area after seeding. After sowing do not water until after germination. See Bauder’s Green Roof Installation Guide for full details.</p> <p>Seed mixes should only be sown in the spring and autumn.</p> <p>The correct watering and aftercare is required for this product.</p>

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BAUDER FLORA 3 SEED MIX

General Use/ BioSOLAR Installations

The Bauder Flora 3 Seed Mix is a blend of seed, tackifier and additives developed to maximise diversity of vegetation on green roofs. Bauder Flora 3 has all the components required to improve the germination and the successful establishment of vegetation for a variety of rooftop conditions: light and shade; exposed and sheltered. The varied mix of species

is designed to deliver the British native, biodiverse species required for BREEAM compliance.

Bauder Flora 3 contains a broad range of wildflowers chosen to give an extended flowering season providing nectar and pollen rich habitat for priority pollinators, larval food plants for butterflies and seed sources for birds.



Mix Details:

- **UK Native British Provenance Seed Mix**
(certification on request)
- **49 Species**
 - 31 species of which eight are annuals
 - 8 Grasses/Sedge
 - 2 Sedum species
- **35 of the wildflowers are classed as RHS Perfect for Pollinators**
- 12 Butterfly and moth larval food plants.
- Shade tolerant species.
- Low growing to medium height.
- **Mix percentages; 65% perennial wildflowers, 20% annuals & 15% grasses.**



Ecological Value

This Flora 3 plant mix has a high ecological value providing a long flowering period and nectar sources for a wide variety of pollinators. Plants with long flower tubes such as Wild Red Clover and Vetch species will provide valuable nectar sources for Long-tongued Bumblebee species including the priority species Brown-banded Carder Bee.

Bird's-foot Trefoil and Kidney Vetch make up 20% of the mix, which are important larval food plants for ten butterfly and moth species, including common and small blue priority species. Plant seed heads provide refuge and overwintering sites for invertebrates and our mix includes Black Knapweed and Common Toadflax, which provide valuable seed sources for birds.

The yellow composite flowers such as Rough Hawkbit and Mouseear Hawkweed in this mix provide good nectar sources for generalist pollinators including hoverflies and beetles. The mix also contains native and or naturalised sedums that will provide evergreen ground cover in sunny areas and can support specialist invertebrates such as the notable bug species *Chlamydatus evanescens*.

Key Specification Features

- Very broad spectrum of species ensuring a broad diversity of created habitats.
- Lengthy flowering season – April to October.
- High number of annuals to give excellent colour in first year.
- Shade tolerant species to give coverage in less sunny locations.
- Low growing plants with good wind tolerance suited to exposed locations.
- Ideal mix for BioSOLAR installations establishing quickly to provide substrate stabilisation.
- Designed to deliver British native, biodiverse species required for BREEAM compliance.

BAUDER FLORA 3 SEED MIX

Establishment and Growth

Typically the mix will produce flowers from April to October starting with species Wild Strawberry and Cowslip, through the summer with Yarrow and Black Knapweed with Lady's Bedstraw flowering later into the autumn. The annuals, biennials and grasses will provide cover and colour in the first season allowing time for the slower growing perennials to establish in later years. The mix has been specified to be drought tolerant with sedum species and low growing perennials.

BioSOLAR

Plants are chosen that do not exceed 40 cm in height to avoid problems with shading of solar panels when the vegetation is used in conjunction with Bauder BioSOLAR. Shade tolerant ground cover plants were specified that will occupy semi-shade microclimates under the panels.

Green roofs are exposed environments subject to wind erosion therefore the mix contains pioneer and ephemeral species such as annuals, biennials and short perennials, which establish quickly from seed and help to stabilise the substrate and prevent wind erosion prior to perennial root systems getting established. A small percentage (typically <15%) of the mix contains non-aggressive grass and sedge species, which will also help to establish and stabilise the substrate.

The seed source is British Provenance (with the exception of sedum species) and suppliers of the mix adopt the Flora Locale Code of Practice for collectors, growers and suppliers of native flora.



(Flora locale is an independent charity. Promoting and advancing the conservation and enhancement of native wild plant populations)

Bauder's Unique Additive Mix

Establishing seed at roof level is difficult, to maximise the germination and establishment of the diverse range of seed used, Bauder has developed a unique blend of seed adhesive, organic nutrients and mycorrhizal fungi to encourage water and nutrient uptake by the developing seedlings.

- The seed mix and additives are combined with a bulking agent which enable the correct sowing rate to be achieved, the adhesive binds the seed to the substrate preventing it from being blown away in windy conditions or washed deep into the substrate and failing to germinate.
- A small quantity of organic slow release fertiliser gives the seed a gentle boost as it establishes. Mycorrhizal fungi increases the root surface area helping the transfer of water and nutrients from the substrate to the developing root system of the plant, enabling the plants to establish quickly.



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Specification Support



Specification downloads:
www.bauder.co.uk/technical-centre



Telephone helpline:
0845 271 8800

PRODUCT DATA SHEET

Bauder SB Substrate Sedum Blanket

A British grown Sedum blanket produced on a fully bio-degradable coir mat carrier designed to be used over Bauder (FLL Compliant) Extensive Substrate.

Intended Use

Bauder SB Substrate Sedum Blanket is a mature vegetation blanket, sown with a broad variety of sedums. It is intended for application directly over Bauder FLL compliant, Extensive Substrate (see Product Data Sheet) as the underlying growing medium. The product is designed to enable rapid rooting to the substrate to speed up establishment times.

The SB Blanket is grown in the UK. Typically, it is not supplied until it is least one year old, this insures the root structure has developed, enabling it to cope with harvesting, transportation and relaying which can stress young sedum plants. The vegetation within this product is a broad mix of hardy sedum species.



PRODUCT INFORMATION AND TECHNICAL PERFORMANCE		
Characteristic	Unit	Value
Maximum saturated weight	kg/m ²	≤ 24
Thickness	mm	30 to 40
Vegetation	Nos	Sown with 13 to 17 sedum species Species mixes are adjusted from time to time. Please contact Bauder Technical for more information.
Material		Substrate and sedum plants, grown on a Coir mat carrier. (100% Bio-degradable)
Typical supply size	m	0.5 x 2m
Rolls per pallet	Rolls	Typically 30-40 rolls-Dependant on weight (40m ²)
Pallets per articulated lorry	Pallets	26 pallets – Dependant on weight (1040m ²)

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PRODUCT DATA SHEET

CERTIFICATION AND ENVIRONMENTAL INFORMATION

International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany).
Recycled content	≥ 95% recycled material

INSTALLATION GUIDANCE

Normally installed directly onto the levelled substrate, it should be installed immediately on delivery, SB Blanket should only be laid by skilled operative. Care should be taken not to traffic the sedum during or after installation. See Bauder's Green Roof Installation Guide for full details.

The correct watering and aftercare is required for this product.

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PRODUCT DATASHEET

Bauder XF301 Sedum System

Single layer, light weight, Sedum System.

Intended Use

Bauder XF301 Single Layer Sedum System is an ultra-light weight sedum system. The product can be laid directly onto the waterproofing without the need for a growing medium. XF301 also contains a moisture mat which retains up to 5 Ltr of water/m². The vegetation is a mix of in excess of 14 sedum varieties.

**PRODUCT INFORMATION AND TECHNICAL PERFORMANCE**

Characteristic	Unit	XF300 Sedum Blanket
Maximum Saturated Weight	Kg/m ²	≤44
Thickness	mm	34 - 44
Sedum and Saxifrage Species	Nos	14 - 17 species
pH Value		6.5 - 7
Typical Supply Size	m	1 x 2
Sedum Species	14+	The species mix is adjusted from time to time. Please contact Bauder Technical for further information
Long Rolls (for use with crane attachment)	m	5 to 10m
Material		Substrate and sedum plants, embedded in a nylon mesh, with a moisture retention fleece

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CERTIFICATION AND ENVIRONMENTAL INFORMATION	
International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany). ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany). ISO 50001: 2011 Energy Management Certificate 70499/03-15_c
BS 476 Part 3: 2004	Ext. F. AA Ext. S. AA
Recycled content	≥ 80% recycled material

INSTALLATION GUIDANCE

Normally installed directly onto the waterproofing or on flat roofs onto SDF mat. Care should be taken not to traffic the sedum. XF301 should be laid by skilled operative. See Bauder's Green Roof Installation Guide for full details.

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PRODUCT DATA SHEET

Bauder (FLL Compliant) Extensive/Biodiverse/Intensive Substrate

Lightweight, free draining substrates designed as a growing medium for a range of different plant species.

Intended Use

This FLL/GRO compliant substrate provides a free draining, growing medium for green roof systems. It is a lightweight substrate designed for most vegetation (Sedum, Wildflower or Grass blankets, Specimen shrubs and trees, plug-plants or seed). Additionally, it provides aeration qualities with some inherent water retention.



PRODUCT INFORMATION AND TECHNICAL PERFORMANCE				
Characteristic	Unit	Extensive Value	Biodiverse Value	Intensive Value
Maximum saturated weight	kg/m ³	≤1,200	≤1,200	≤1,250
Typical supply weight	kg/m ³	c. 900	c. 950	c. 1,000
Water storage	By vol	35%	35%	35%
pH value	pH	6 - 8.5	6 - 8.5	6 - 8.5
Bulk bag size	m ³	1.25	1.25	1.25
Small bag size	Litre	25	25	25
Material	Recycled crushed brick, expanded clay, shale, composted pine bark			

CERTIFICATION AND ENVIRONMENTAL INFORMATION	
International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany). ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany). ISO 50001: 2011 Energy Management Certificate 70499/03-15_c (Germany)
Recycled content	≥ 95% recycled material

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PRODUCT DATA SHEET

INSTALLATION GUIDANCE

Normally installed above a filter fleece and drainage board product. Substrates are raked out to give an even coverage of the required depth after settlement. See Bauder's Green Roof Installation Guide for full details.

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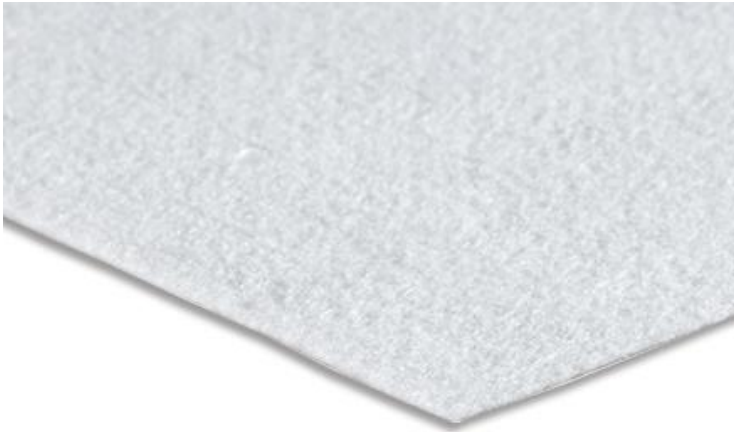
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PRODUCT DATA SHEET

Bauder Filter Fleece

Fine mesh PP geotextile used in conjunction with Bauder substrates.

**Intended Use**

Bauder's Filter fleece is designed to separate and contain Bauder substrates from the drainage element of the green roof system. It prevents fine material from being washed out of the substrate layer.

PRODUCT INFORMATION AND TECHNICAL PERFORMANCE

Characteristic	Test method	Unit	Value
Weight	DIN EN 1848-1	g/m ²	125
Pore size	-	mm	0.13
Water storage	-	Litre/m ²	0
Thickness	-	mm	1
Size (supplied in rolls)	-	m	1 or 2 x 100
Coverage	-	m ²	100 or 200
Material	Polypropylene fleece		

CERTIFICATION AND ENVIRONMENTAL INFORMATION

International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany). ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany). ISO 50001: 2011 Energy Management Certificate 70499/03-15_c (Germany).
Recycled content	Varied ≥10%

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PRODUCT DATA SHEET

INSTALLATION GUIDANCE

Normally installed to contain the substrate. The fleece should be taken up the sides of the substrate between the substrate and drainage trim or pebble margin. Fleece joints should be overlapped 150mm. Fleece should not be taken over the top of drainage outlets.

See Bauder's Green Roof Installation Guide for full details.

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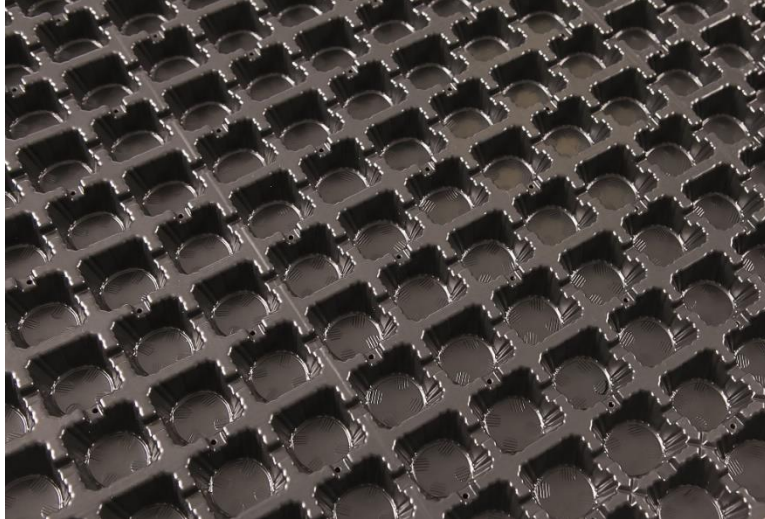
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PRODUCT DATA SHEET

Bauder DSE20 Drainage and Protection Layer

HDPE water storage and multi-directional drainage layer. Used on roofs below 5° pitch.



Intended Use

Laid on to the completed waterproofing to provide continuous drainage within hard and soft landscaping. It is primarily used where the load is moderate, such as extensive green roofs, beneath paving laid on sand/cement or gravel bedding or within planter beds.

PRODUCT INFORMATION AND TECHNICAL PERFORMANCE

Characteristic	Test method	Unit	Value
Weight (dry)	EN 1848-1	Kg/m ²	1.2
Weight (saturated)		Kg/m ²	8.6
Water Storage		Ltr	7.4
Material			recycled high density polyethylene
Nominal Thickness		mm	2
Depth		mm	20
Board Size		m	1.06 x 2.36 (2.5 m ²)
Approx. Coverage		m ²	2

CERTIFICATION AND ENVIRONMENTAL INFORMATION

International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany). ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany). ISO 50001: 2011 Energy Management Certificate 70499/03-15_c (Germany)
Recycled content	100% recycled high density polyethylene

INSTALLATION GUIDANCE

Normally installed over a protection layer, sheets are laid (open cells up) over entire areas. Overlap each sheet by one full cup. See Bauder's Green Roof Installation Guide for full details.

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PRODUCT DATASHEET**Bauder DSE40 Drainage and Water Storage Layer**

Water storage and multi-directional drainage layer. Used on roofs below 5° pitch.

Intended Use

Laid on to the completed waterproofing to provide continuous drainage within hard and soft landscaping. It is primarily used where the load is moderate to high, such as extensive and intensive green roofs. Its compressive strength makes it suitable beneath paving laid on sand/cement or gravel bedding or within planter beds. Normally laid over a protection layer.



PRODUCT INFORMATION AND TECHNICAL PERFORMANCE			
Characteristic	Test method	Unit	Value
Weight (dry)	DIN EN 1848-1	Kg/m ²	1.8
Weight (saturated)		Kg/m ²	15.3
Water Storage		Ltr	13.5
Compressive Strength		N/m ²	80 KN/m ² empty ≥1000 KN/m ² filled
Depth		mm	40
Size		m	1.04 x 2.03
Approx. Coverage		m ²	2

CERTIFICATION AND ENVIRONMENTAL INFORMATION	
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Recycled content	100% recycled high density polyethylene

INSTALLATION GUIDANCE
Normally installed over a protection layer, sheets are laid (open cells up) over entire areas. Interlock by overlap each sheet by one full cup. See Bauder's Green Roof Installation Guide for full details.

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PRODUCT DATA SHEET

Bauder FSM 600 & FSM 1100 Protection Mat

Heavy duty protection layer made from polyester and polypropylene fibres. Supplied in two thicknesses.



Intended Use

Laid on the completed waterproofing to protect the completed waterproofing from mechanical damage.

PRODUCT INFORMATION AND TECHNICAL PERFORMANCE

Characteristic	Unit	FSM 600 Value	FSM 1100 Value
Weight (dry)	kg/m ²	0.6	1.1
Weight (saturated)	kg/m ²	3.6	7.1
Water storage	Litre/m ²	3	6
Thickness	mm	4	8
Size (supplied in rolls)	m	2 x 30	2 x 15
Coverage	m ²	60	30
Material	-	Polyester and polypropylene fibre mix	

CERTIFICATION AND ENVIRONMENTAL INFORMATION

International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany) ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany) ISO 50001: 2011 Energy Management Certificate 70499/03-15_c (Germany)
Recycled content	100% - Polyester and polypropylene fibre mix

INSTALLATION GUIDANCE

Normally installed under the entire green roof area, but kept clear of all outlets and drainage trims. FSM mats should be lapped by 150mm at all joints.

See Bauder's Green Roof Installation Guide for full details.

Bauder reserves the right to amend information and product specifications without prior notice. All reasonable care has been taken to ensure that all data is current at the time of print, however because Bauder pursues a policy of constant development we recommend ensuring that your copy of this information is current by contacting our Technical Department at technical@bauder.co.uk

Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications, installation techniques and any applicable laws and regulations.

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Appendix 06: Charcon Concrete Block



ANDOVER TEXTURED



Incorporates uniquely formulated aggregates to maximise performance, durability and aesthetics offering the hard wearing characteristics of granite at an affordable price.

FEATURES

- ▶ Range of shades can be used to complement and contrast one another, including pale, understated colours that can be used to create a contemporary backdrop to either modern or traditional projects
- ▶ Block paving sizes provides optimum design flexibility and strong visual appeal in virtually any location
- ▶ Available as an Infilta concrete block permeable paver (CBPP)
- ▶ Can be used to create different patterning effects in adjacent areas while retaining overall texture and colour consistency
- ▶ Some shades incorporate up to 50% recycled and reclaimed aggregate
- ▶ Pencil chamfer profile creates a smoother riding surface
- ▶ Available in long aspect paving for a versatile contemporary look
- ▶ Semi dry manufacturing process then textured

APPLICATIONS

Suitable for high volume and prestigious pedestrian areas, town centres, shopping precincts and footways as well as occasional car or mechanical sweeper overrun, footways with cars and HGV vehicle or service areas. Refer to the relevant sections of BS7533 for correct design and applications. Refer to technical department for advice on your given application – telephone 01335 372222.

MANUFACTURING STANDARD

Andover Textured is manufactured using a semi-dry process. Flag paving is manufactured in accordance with and complies with all relevant sections of BS EN 1339: Precast concrete flags – requirements and test methods. Block paving is manufactured in accordance with and complies with all relevant sections of BS EN 1338: Precast concrete block paving – requirements and test methods.

Aggregate Industries fully operates an accredited Quality Assurance scheme, certified to BS EN 9001:2015 which is independently and regularly assessed by BSI (British Standards Institution).

All Aggregate Industries manufacturing sites are also certified to BS EN 14001:2015 Environmental Management Systems.

PERFORMANCE WITH SLIP RESISTANCE

Unpolished slip resistance values, when tested in accordance with BS EN 1339 and BS EN 1338, annex I – method for the determination of unpolished slip resistance value, are available on request. The product is classified as having a low potential for slip.

Polished slip resistance values can be provided on request.

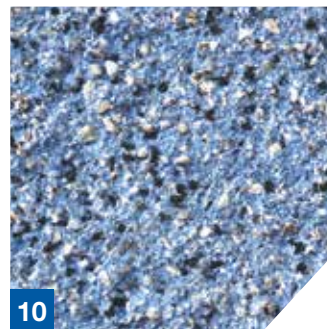
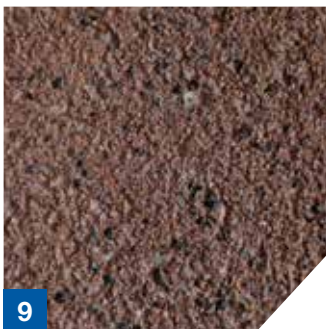
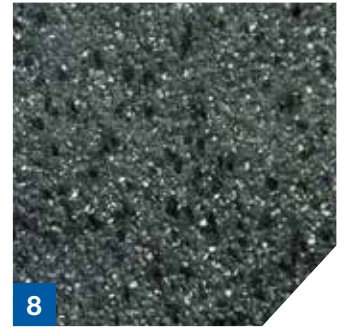
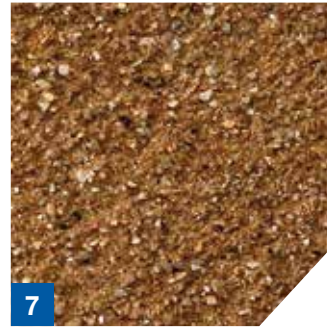
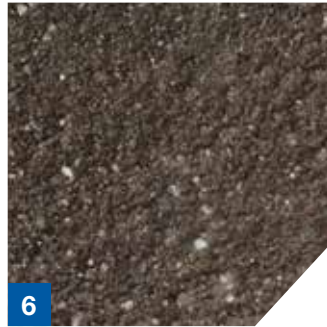
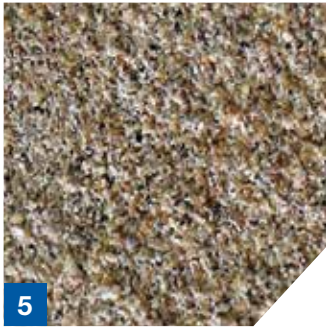
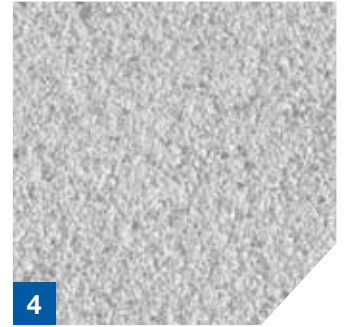
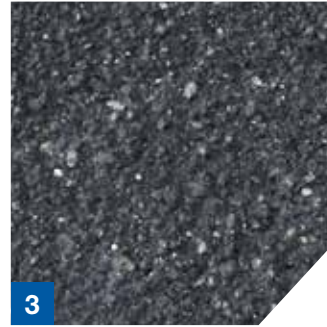
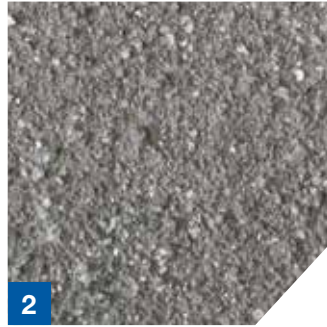
COMPLEMENTARY PRODUCTS

Eco Countryside kerbs and made to order Andover textured steps are available.



nbsPlus Q24 and Q25. For NBS clauses, refer to Aggregate Industries technical services.

COLOUR SWATCHES



Shades Available:

1. Light Grey
2. Graphite Grey
3. Dark Grey
4. White
5. Cream
6. Oak
7. Chestnut
8. Dark Grey Fleck
9. Rothley Red
10. Blue

Andover Textured Product Data							
Size (mm)	600x600	600x200	450x450	450x450	400x400	400x200	300x300
Thickness (mm)	50	80	70	50	65	65	80
Weight (kg)	44	21	38.7	23.5	25	12.5	16.5
Units/m ² (approx)	2.78	8.33	4.94	4.94	6.25	12.50	11.11
No. per pack	28	36	36	40	48	96	54
M ² /pack (approx)	10.08	4.32	7.29	8.10	7.68	7.68	4.86
Pack weight (T)	1.23	0.76	1.39	0.94	1.00	1.20	0.89
Colours	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*
Edge Detail	Pencil	Pencil	Pencil	Pencil	Pencil	Pencil	Pencil

Andover Textured Product Data (continued)							
Size (mm)	300x200	300x100	200x200	200x100	100x100	200x100	200x100
Thickness (mm)	80	80	80	80	80	60	150
Weight (kg)	11	5.5	7.3	3.8	1.7	2.8	6.91
Units/m ² (approx)	16.67	33.33	25	50	100	50	50
No. per pack	108	216	160	320	560	384	160
M ² /pack (approx)	6.48	6.48	6.40	6.40	5.60	7.68	3.2
Pack weight (T)	1.18	1.18	1.17	1.16	1.00	1.08	1.1
Colours	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*	Wh*, LG*, DG*, Cr*, Che*, Oa*, GG, DGF*, Bl*, RR*
Edge Detail	Pencil	Pencil	Pencil	Pencil	Pencil	Pencil	Pencil

LG - Light Grey / GG - Graphite Grey / DG - Dark Grey / Wh - White / Cr - Cream / Oa - Oak / Che - Chestnut / DGF - Dark Grey Fleck / RR - Rothley Red / Bl - Blue

Made to Order

Andover Textured & Eco Pave Block Paving (Not Infilta) (minimum 200m ² per colour)	1 Size = 500m ² 2 Sizes = 600m ²	3 Sizes = 700m ² 4+ Sizes = 800m ²
Andover Textured & Eco Pave Infilta Block (minimum 200m ² per colour)	1 Size = 350m ² 2 Sizes = 600m ²	3 Sizes = 700m ² 4+ Sizes = 800m ²
All Specifier Flag Paving – Stonemaster, ECO & Andover (300m ² per colour)	1 Size = 600m ²	2 Sizes = 1,200m ²

SUSTAINABILITY AND LOCAL SOURCING

ENERGY USE AND GREENHOUSE GAS EMISSIONS:

Aggregate Industries is at the forefront of sustainability and has committed to reducing both energy and greenhouse gas intensity 5% year-on-year (18.5% total improvement by 2020).

RECYCLABLE: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.

MANUFACTURING LOCATION: Produced in the UK under strict environmental and social legislation.

RESPONSIBLE SOURCING: Aggregate Industries is the first company in the world to achieve accreditation to the BES 6001 Framework Standard for the Responsible Sourcing of Construction Products.

Aggregate Industries has achieved a 'Very Good' rating for major product groups. The BES 6001 standard assesses:

- ▶ Quality management.
- ▶ Environmental management.
- ▶ Health and safety management.
- ▶ A range of social and environmental issues.

KEY AGGREGATE AND RECYCLED CONTENT

Andover is manufactured from specially selected aggregates in a semi-dry process and textured.

GENERIC GREEN GUIDE RATING*

Concrete paving flags (60mm with a prepared recycled sub-base)
- **A+ rated.**

Concrete paving flags (60mm with a prepared sub-base)
- **A rated.**

Concrete block pavers (80mm) over prepared recycled sub-base
- **A rated.**

Concrete block pavers (80mm) over prepared sub-base
- **B rated.**

POLICIES

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

DESIGN AND INSTALLATION

For flag pavement design guidance refer to BS 7533 Part 8. For successful installation refer to BS 7533 Part 4. For specific design, installation and maintenance guidance, please contact our technical department on **01335 372222**.

For block paving pavement design guidance refer to BS 7533 Parts 1 & 2. For successful installation refer to BS 7533 Part 3. For specific design, installation and maintenance guidance, please contact our technical department on **01335 372222**.

MAINTENANCE AND CLEANING

After laying light coloured paving on site, care should be taken to protect from dirt and detritus while the remaining construction works are completed.

Aggregate Industries can supply on request advice on specific stain removal and general maintenance, suitable cleaning products and referrals to specialist cleaning companies.

COSHH DATA

Full COSHH data on the Charcon range of products is available on request. Please call the technical helpline on **01335 372222**.

TECHNICAL SUPPORT

Detailed guidance and assistance with the preparation of specification of the Charcon range of hard landscaping products, including model clauses, is available through the sales office. A free technical design service is also available.

For further information, please refer to our technical services on **01335 372222**.

The information contained within this publication was accurate at time of production. However, Aggregate Industries reserves the right to introduce modifications or changes to detail at any time without notice. No charge is levied for this publication or advice therein, and accordingly the company, its employees and authorised agents can accept no liability whatsoever, either indirectly or directly arising from the use of its products.

*Ratings based upon generic green guide values (2019) supplied by BRE Global Ltd, www.thegreenguide.co.uk

EFFLORESCENCE

Aggregate Industries cannot accept responsibility for the effect of "efflorescence" which can be a characteristic of all building products.

FOR FURTHER INFORMATION

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Fax: +44 (0)1335 370 074

Email: landscaping@aggregate.com
Web: www.aggregate.com





INFILTA



A range of aesthetically pleasing permeable paving products used to form a hard wearing concrete block paving product. Used to form a permeable hard landscaped surface within a sustainable drainage system (SuDS). Each interlocking unit incorporates a specially designed 5mm spacer nib to allow the ingress of surface water through to the subbase water storage system below.

FEATURES

- ▶ Permeable surfacing and source control SuDS technique.
- ▶ Colour mix and texture options to provide high quality, aesthetic and functional schemes.
- ▶ Can be easily lifted for access to services and reinstated without leaving the usual repair scars.
- ▶ Offers high levels of durability and good grip.

APPLICATIONS

Charcon Infilta is suitable for use in a range of applications including pedestrian areas, shopping precincts, access roads and car parking facilities. Refer to technical services for advice on specific applications tel: 01335 372222.

MANUFACTURING STANDARD

Infilta permeable paving is compliant to European Standard BS EN 1338 and BS EN 1339.

All Aggregate Industries products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

PERFORMANCE

STRENGTH: The products are manufactured to meet the strength requirements of BS EN 1338 and BS EN 1339.

SLIP AND SKID RESISTANCE: Concrete block permeable paving has satisfactory slip/skid resistance in accordance with manufacturing standard BS EN 1338 and BS EN 1339.

COMPLEMENTARY PRODUCTS

Aggregate Industries SuDS range along with block paving, flag paving and kerb, aggregate, asphalt and ready-mixed concrete.





INFILTA

COLOUR AVAILABILITY:
Brindle, Grey, Charcoal, Red and Autumn



ECOPAWE TEXTURED INFILTA

COLOUR AVAILABILITY:
Grey Fleck or Buff Fleck



STONEMASTER® INFILTA

COLOUR AVAILABILITY:
Natural Buff, Sandy Buff, Amber Buff, Sienna Buff, Light Grey, Medium Grey or Dark Grey



WOBURN ORIGINAL INFILTA

COLOUR AVAILABILITY:
Graphite or Rustic



WOBURN RUMBLED INFILTA

COLOUR AVAILABILITY:
Autumn, Graphite or Rustic



ANDOVER TEXTURED INFILTA

COLOUR AVAILABILITY:
White, Light Grey, Silver Grey, Midnight Grey, Cream, Chestnut, Oak or Silver Fleck



ANDOVER WASHED INFILTA

COLOUR AVAILABILITY:
Silver Grey, Light Grey, Mid Grey, Dark Grey, Pink Granite, Tuscan Porphyry, Heather Porphyry or Anthracite Charcoal

PRODUCT DATA							
Product	Infilta	EcoPave Textured Infilta*	StoneMaster Infilta*	Andover Textured Infilta*	Andover Washed Infilta*	Woburn Original Infilta*	Woburn Rumbled Infilta
Sizes (mm)	200x100	600x300 450x300 300x300 200x200 200x170 200x100 100x100	600x300 450x300 300x300 200x200 200x170 200x100 100x100	600x300 450x300 300x300 200x200 200x170 200x100 100x100	600x300 450x300 300x300 200x200 200x170 200x100 100x100	201x134 134x134 100x134	201x134 134x134 100x134
Thickness (mm)	60/80	80	80	80	80	60/80	60/80
Weight (kg)	2.8, 3.65	3.65	3.65	3.65	3.65	3.5, 2.3, 1.7	3.5, 2.3, 1.7
Units/m2 (approx.)	50	50	50	50	50	37, 55, 74	37, 55, 74
No. per pack	404/308	320	320	320	320	312, 468, 624	312, 468, 624
M2/pack (approx.)	8.08/6.16	6.46	6.46	6.46	6.46	8.43, 8.35, 8.32	8.43, 8.35, 8.32
Pack weight (T)	1.12/1.13	1.17	1.17	1.17	1.17	1.14, 1.14, 1.14	1.14, 1.14, 1.14
Colours	Br, Ch, Gr, Rd, Au	GF, BuF	NB, SiB, SaB, AB, LGW, MGW, DGW	Wh, LG, SG, MG, Cr, Chs, Oa, SF	SG, LG, MG, DG, PG, TP, HP, AC	Gra, Ru	Au, Gra, Ru

SF - Silver Fleck / BuF - Buff Fleck / GF - Grey Fleck / NB - Natural Buff / SiB - Sienna buff / SaB - Sandy Buff / AB - Amber Buff / LGW - Light Grey Washed / MGW - Medium Grey Washed / DGW - Dark Grey Washed / Wh - White / LG - Light Grey / MG - Mid Grey / MiG - Midnight Grey / Chs - Chestnut / Oa - Oak / Cr - Cream / Ch - Charcoal / SG - Silver Grey / AC - Anthracite Charcoal / SG - Silver Grey / DG - Dark Grey / PG - Pink Granite / TP - Tuscan Porphyry / HP - Heather Porphyry / Bu - Buff / Gr - Grey / Br - Brindle / Au - Autumn / Gra - Graphite / Ru - Rustic. * MTO with minimum order of 1500m2 for standard Infilta, but all specifier Infilta products are only 350m2 for one size, 600m2 for two sizes, 700m2 for 3 sizes and 800m2 for four sizes. Minimum 200m2 per colour. + Also available in 200x134, 134x134 and 100x134 as MTO item.

SUSTAINABILITY AND LOCAL SOURCING

ENERGY USE AND GREENHOUSE GAS EMISSIONS:

Aggregate Industries is at the forefront of sustainability and has committed to reducing both energy and greenhouse gas intensity 5% year-on-year (18.5% total improvement by 2020).

RECYCLABLE: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.

MANUFACTURING LOCATION: Produced in the UK, with locally sourced materials under strict environmental and social legislation, for local supply.

RESPONSIBLE SOURCING: Aggregate Industries is the first company in the world to achieve accreditation to the BES 6001 Framework Standard for the Responsible Sourcing of Construction Products. Aggregate Industries has achieved a 'Very Good' rating for major product groups. The BES 6001 standard assesses:

- ▶ Quality management.
- ▶ Environmental management.
- ▶ Health and safety management.
- ▶ A range of social and environmental issues.

LIFE

Life is our range of sustainable products and services. For more information please visit www.aggregate.com/life

KEY AGGREGATES AND RECYCLED CONTENT

Infilta permeable block paving is manufactured using high quality aggregates. Please refer to technical services for individual material content for each Infilta option.

GENERIC GREEN GUIDE RATING*

Concrete block pavers, CBP (80mm) over prepared recycled sub-base - **A rated.**

Concrete block pavers, CBP (80mm) over prepared sub-base - **B rated.**

Concrete block pavers, CBP (60mm) over prepared recycled sub-base - **A+ rated.**

Concrete block pavers, CBP (60mm) over prepared sub-base - **A rated.**

POLICIES

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

INSTALLATION STANDARD

For specific guidance refer to Aggregate Industries technical services on **01335 372222.**

MAINTENANCE AND CLEANING

For specific guidance refer to Aggregate Industries technical services on **01335 372222.**

COSHH DATA

Full COSHH data on Surface Water Solutions products is available on request. Please call technical services on **01335 372222.**

SuDS

Our SuDS offering includes a range of permeable surfaces (block paving, asphalt and concrete) with aggregate sub-base for a range of applications. Please contact the Charcon technical department for further details on our full SuDS capability.

TECHNICAL SUPPORT

Detailed guidance and assistance with the preparation of specifications for Surface Water Solutions products is available. For further information, please refer to technical services on **01335 372222.**

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*Ratings based upon generic green guide values (2009) supplied by BRE Global Ltd, www.thegreenguide.co.uk

FOR FURTHER INFORMATION

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Appendix 07 – Breedon Gravel