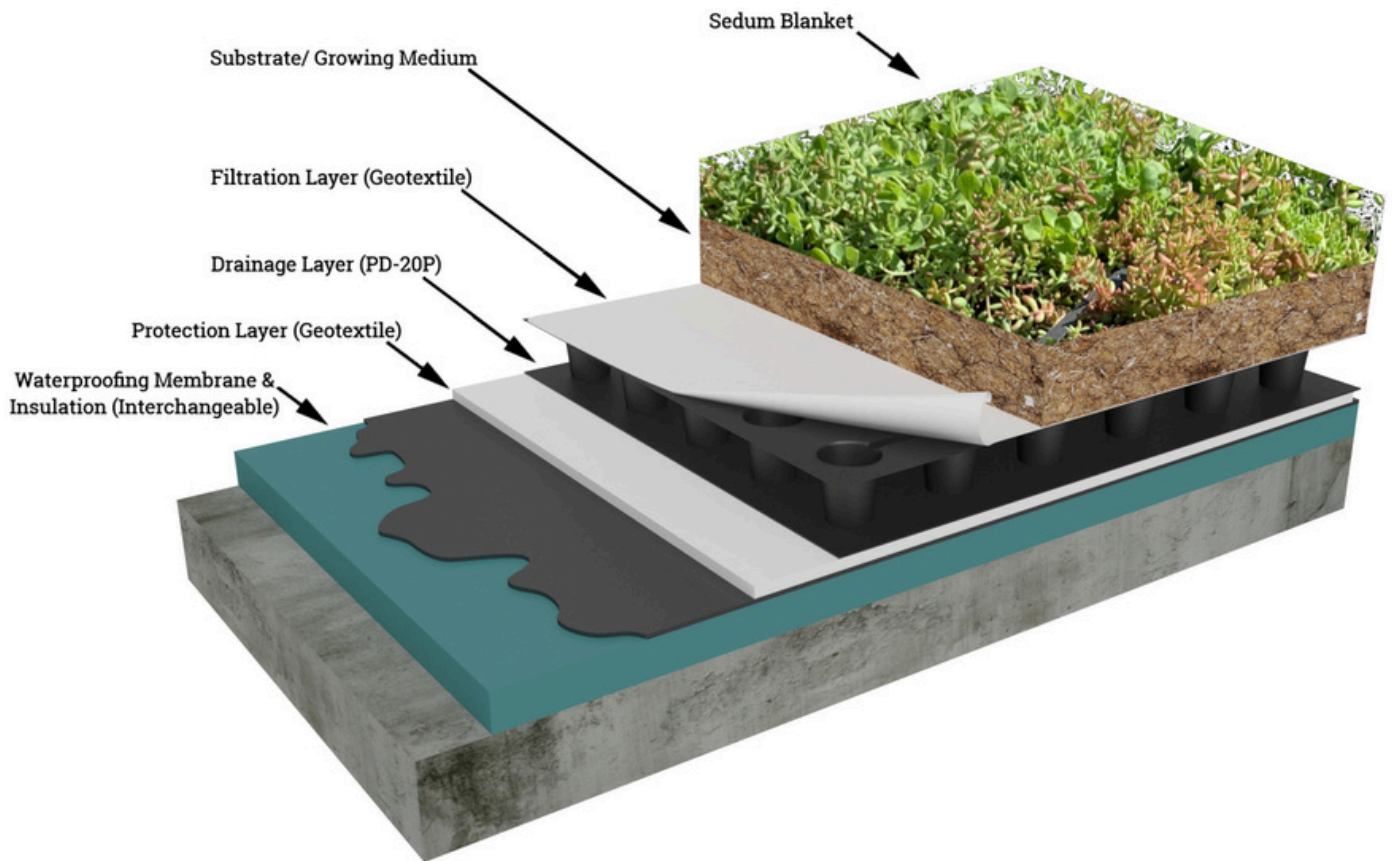




Wallbarn - Technical Datasheet

Rollout Sedum Green Roof System

A simple, low maintenance green roof solution supplied layer by layer



Total System Weight Variances per square metre

| | |
|--|---|
| <p>Dry Weight Minimum (Based on Substrate at 100mm depth)</p> | <p>Approx. 100 kg per sqm ± 5%</p> |
| <p>Saturated Weight (Based on Substrate at 100mm depth)</p> | <p>Approx. 140 kg per sqm ± 5%</p> |

It is the customer's responsibility to ensure that the roof is structurally sound and capable of supporting the additional weight of the green roof, including allowances for snow load.

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Rollout Sedum Green Roof System

System Overview

A sedum roof is an extensive green roofing solution that offers both aesthetic and environmental benefits. Rollout sedum green roofs are pre-cultivated systems that allow for quick and easy installation. These systems consist of multiple layers, each playing a vital role in the performance and longevity of the roof. At the base, a waterproofing membrane protects the building from water ingress, followed by a protective layer (geotextile) laid directly on the structure. Above this, a drainage layer (Protecto-Drain 20P) ensures excess water is directed away, maintaining moisture levels for plant growth while also preventing waterlogging.

A filtration layer (geotextile) is placed on top of the drainage layer to keep fine particles from clogging the drainage system. Above this is a lightweight growing medium/substrate that provides the necessary nutrients and stability for the sedum plants. Finally, the top layer consists of pre-grown sedum mats, which are hardy, low-maintenance plants that thrive in a variety of climates.

Sedum Species (8-12 Varieties per blanket - dependent on seasonal availability)

| | | | |
|--------|-----------------------|--------|--------------------------|
| SA 328 | Sedum album | SA 353 | Sedum middenorfianum |
| SA 352 | Sedum hybridum | SA 355 | Sedum montanum |
| SA 348 | Sedum floriferum | SA 354 | Sedum montanum orientale |
| SA 368 | Sedum ellecombianum | SA 371 | Sedum sexangulare |
| SA 369 | Sedum selskianum true | SA 320 | Sedum acre |
| SA 359 | Sedum pulchellum | SA 376 | Sedum spurium Coccineum |
| SA 364 | Sedum reflexum | | |

The specification presented above is to the best of our knowledge, true and accurate. Wallbarn reserve the right to change any specification without prior notice. We cannot guarantee or offer warranty on products unless agreed in writing for specific conditions or for performance as the manner of handling, use and installation are beyond our control. We will not be liable for damages or losses, direct or indirect, of our range of products due to the above reasons. All comparative data was correct at the time of print.

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Rollout Sedum Green Roof System

Sedum Blanket

| | |
|-------------------------------------|---------------------------|
| Fibre | Coir |
| Fibre Content (%) | 100% |
| Top + Bottom Netting Type PP | UV Deg |
| Top + Bottom Netting Size | 9 x 9 or 12 x 13 |
| Top + Bottom Netting Weight | 48 g/m² |
| Stitching Thread | 6.5 Cn/dtex |

Substrate within Sedum Blanket

| | |
|--|------------|
| Greenwaste Compost | 80% |
| Crushed Mineral Fines | 20% |
| Slow release organic based fertiliser with additional micro-nutrients | |

| | |
|---|------------------------|
| Roll Size | 2m x 1.2m |
| Pallet Quantity (average - affected by seasons) | 48m² |
| Roll Weight Dry | 15 - 20kg |
| Roll Weight Saturated | 30 - 40kg |
| Maximum pallet weight for Customer offload | 1,000kg |

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Wallbarn - Technical Datasheet Rollout Sedum Green Roof System

Substrate

Extensive Green Roof Substrate, designed to be a lightweight, water controlling material with a lower organic material content to support hardy vegetation. We recommend a depth for the substrate to be 100mm in depth.

| Product Information & Technical Performance | | |
|---|---|-----------------|
| Characteristic | Unit | Extensive Value |
| Maximum saturated weight | Kg/m ³ | c. 1184 |
| Typical supply weight | Kg/m ³ | ≤ 940 |
| Water storage | By vol | 35% |
| pH Value | | 6 - 8 |
| Bulk bag size | m ³ | 1 |
| Small bag size | Litre | 25 |
| Material | Expanded Clay, Pumice, Topsoil, Organic Compost, Sand | |

These quality assured substrates have been engineered to take account of industry standard guidelines.

| CERTIFICATION AND ENVIRONMENTAL INFORMATION |
|--|
| ISO 9001 : 2015 QUALITY MANAGEMENT – CERTIFICATE CA12400 |
| ISO 14001 : 2015 – ENVIRONMENTAL MANAGEMENT – CERTIFICATE EN1262 |
| ISO 18001 : 2007 – HEALTH AND SAFETY MANAGEMENT – CERTIFICATE HS1236 |

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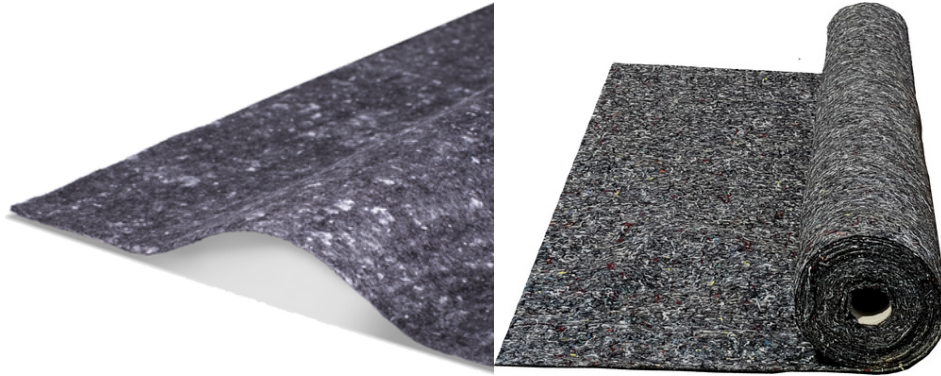
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Rollout Sedum Green Roof System

Filtration and Protective Layer - Geotextile Fleece



GE-PP-PPT-400-Z

Wallbarn PPT Geotextile is a nonwoven, recycled polypropylene material. This is a stronger, more durable fabric than the recycled polyester. PPT Geotextile is ideal as a protection & filtration membrane for green roof applications. Made from multi-coloured fibres resulting from recycling processes, it promotes sustainable construction.

Key benefits:

- Made from recycled Polypropylene material.
- Ideal for green roofing - [Meets GRO Code](#)
- High performance material with a cost saving.
- Can be exposed to sunlight (Must be covered within 15 days of installation).
- Durability forecast: minimum 5 years in natural ground with a pH between 4 and 9 and soil temperature above 25°C.
- Manufactured **without glues or chemical binders.**

Specifications:

- Polymer: Polypropylene
- Specific weight: 0.91 kg/dm³
- Raw material: Staple fibres
- Process: Needle-punched and calandered.
- Colour: Multi-coloured

Available as 1 x 50 & 2 x 50 metre rolls (stock item) - Widths of 3, 4, 5 & 6 metre available on special order (min. quantities apply)



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Rollout Sedum Green Roof System

Filtration and Protective Layer - Geotextile Fleece cont'd

| Physical Properties | Standard | Value | Units | Tolerance % | Tolerance Units |
|---------------------|---------------|-------|------------------|-------------|-----------------|
| Mass per unit area | EN ISO 9864 | 400 | g/m ² | +/- 10 | +/- 40 |
| Thickness at: | : | : | : | : | : |
| 2 kPa | EN ISO 9863-1 | 2.50 | mm | +/- 20 | +/- 0.50 |
| 20 kPa | EN ISO 9863-1 | 2.20 | mm | +/- 20 | +/- 0.44 |
| 200 kPa | EN ISO 9863-1 | 1.50 | mm | +/- 20 | +/- 0.30 |

| Mechanical Properties | Standard | Value | Units | Tolerance | Tolerance Units |
|----------------------------------|-------------------------------------|------------|-------------------|------------------|------------------|
| Tensile Strength | EN ISO 10319 MD EN ISO 10319 CMD | 7.0 8.0 | kN/m kN/m | -15 -15 | -1.1 -1.2 |
| Elongation at maximum load | EN ISO 10319 MD EN ISO 10319 CMD | 70 70 | % % | +/- 30 +/- 30 | +/- 21 +/- 21 |
| Energy absorption index | EN ISO 10318 | 2.60 | kJ/m ² | +/- 20 | +/- 0.52 |
| Static puncture resistance (CBR) | EN ISO 12236 | 1.4 | kN | -30 | -0.42 |
| Dynamic puncture resistance | EN ISO 13433 | 18 | mm | +30 | +5 |
| Pyramidal puncture resistance | EN 14574 | 240 | N | -30 | -72 |

µm = Micrometre

mm/s = Millimetre per second

kJ/m² = Kilojoule per square metre

MD = Machine Direction/Longitudinal

kg/dm³ = Kilogram per cubic decimetre

kN = Kilonewton

mm = Millimetre

g/m² = Gram per square metre

kN/m = Kilonewton per metre

l/ms = Cubic metre per millisecond

CMD = Cross Machine Direction/Trasversal

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Wallbarn - Technical Datasheet Rollout Sedum Green Roof System

Drainage Layer - Protecto-Drain 20mm Perforated

Wallbarn Protecto-Drain 20P is a water-storing, perforated dimpled membrane and is an ideal solution for extensive green roofs. The 20 mm dimples have a water storage capacity of approx. 6 l/m². The pressure resistance of approx. 180 kN/m² offers a high level of security, corresponding to a compressive strength of approx. 18 tonnes per m².

| | |
|--|--|
| Dimpled membrane | HDPE approx. 1,000 g/m² |
| Dimple height | approx. 20 mm |
| Total weight | approx. 1,000 g/m² |
| Number of dimples | 400 dimples/m² |
| Compressive strength | approx. 180 kN/m² |
| Water draining capacity | approx. 9 l/s·m |
| Water storage | approx. 6.0 l/m² |
| Roll length | 20 m (or on request Roll width 0.5 / 1.0 / 1.5 / 2.0 m) |
| Air volume between the dimples | approx. 14 l/m² |
| Temperature resistance | -30 °C to +80 °C |
| Chem. properties | chemical-resistant |
| Physiolog. properties | safe for drinking water |
| Water permeability EN ISO 11058 | approx. 100 · 10⁻³ m/s |
| Fire behaviour | Class E |

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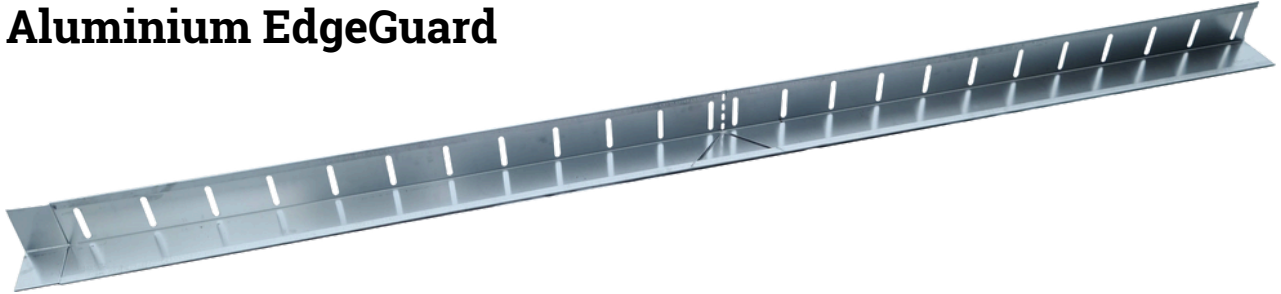


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Rollout Sedum Green Roof System

Accessories

Aluminium EdgeGuard



Can be used either as an edge restraint in the absence of a parapet or raised upstand. Also used for separating different materials on the roof, particularly between pebbles and the green roof buildup. Can be used on roofs that have up to 5 degree pitch. Available in a variety of heights.

| Code | Description | Height (mm) | Width of base (mm) | Material thickness (mm) | Length of section (mm) |
|--------------|-------------------------------------|-------------|--------------------|-------------------------|------------------------|
| GR-EDGE050-Z | Aluminium, pre-punched and profiled | 50 | 100 | 1.2 | 2400 |
| GR-EDGE075-Z | | 75 | 100 | 1.2 | |
| GR-EDGE100-Z | | 100 | 100 | 1.2 | |
| GR-EDGE120-Z | | 120 | 100 | 1.2 | |
| GR-EDGE150-Z | | 150 | 150 | 1.2 | |
| GR-EDGE200-Z | | 200 | 150 | 1.5 | |
| GR-EDGE250-Z | | 250 | 200 | 1.5 | |
| GR-EDGE300-Z | | 300 | 200 | 1.5 | |



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Rollout Sedum Green Roof System

Accessories

Pebbles



40 x 25Kg Bags
GR-PEB-2040-PAL-Z



1 x 25Kg Bag
GR-PEB-2040-Z



1 Tonne Bulk Bag
GR-PEB-2040-LARGE-Z

Also familiarly known as Sea Washed Pebbles/Cobbles/Stones/Beach/Ballast etc (NB the material is sourced from vast shingle banks and repeatedly washed in clean water during screening). The material is supplied, according to buyers' needs, as roughly spherical stone (which may include some broken materials) graded in diameter normally. The colour of the stone varies from light to mid brown through to grey/black.

Wallbarn strongly recommends following the guidelines set out in the [GRO Code](#) for green roof best practices. Part of these recommendations include a pebble border around the entire perimeter of the green roof area and also around rooftop features such as rooflights, vents and any other equipment installed on the roof.

Gravel & Leaf Guards



Heavy duty leaf and gravel guards designed to stop leaves, gravel and pests entering the top of the circular drainage downpipe. This prevents blockages and assists in drainage of the roof.



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Rollout Sedum Green Roof System

Accessories

Inspection Chambers



Used to create an inspection chamber around outlets and irrigation points in green roof systems.

- Manufactured from high grade, powder coated aluminium for excellent corrosion resistance.
- Base of Inspection Chamber allows drainage via channels cut in the base
- Standard or parapet bases available
- Three different sizes of interlocking mid sections to cater for different levels of build up
- Lockable lid section

| Code | Description | Height (mm) | Dimensions of Base (mm) w x l |
|------------------------|--|-------------|-------------------------------|
| GR-INSPECT-ALI-Z | Aluminium Inspection Box | 50 | 300 x 300 |
| GR-INSPECT-ALI-300-Z | Aluminium Inspection Box - Full Slots | 300 | 300 x 300 |
| GR-INSPECT-BASE-100-Z | Aluminium Inspection Box Parapet Base | 100 | 300 x 300 |
| GR-INSPECT-BASE-300-Z | Aluminium Inspection Box Parapet Base | 300 | 300 x 300 |
| GR-INSPECT-EXT-050-Z | Aluminium Inspection Box Extension Piece | 50 | 300 x 300 |
| GR-INSPECT-EXT-075-Z | Aluminium Inspection Box Extension Piece | 75 | 300 x 300 |
| GR-INSPECT-EXT-100-Z | Aluminium Inspection Box Extension Piece | 100 | 300 x 300 |
| GR-INSPECT-EXT-200-Z | Aluminium Inspection Box Extension Piece | 200 | 300 x 300 |
| GR-INSPECT-ALI-COVER-Z | Aluminium Inspection Box Locking Cover | 55 | 300 x 300 |



Wallbarn - Technical Datasheet Rollout Sedum Green Roof System

Detailed Datasheets are available for every product within this document and can be found on our website or by requesting them from your Account Manager.

| Product | Datasheet Link |
|---|---|
| Sedum Blanket | https://www.wallbarn.com/wp-content/uploads/2024/02/Wallbarn-Sedum-Blanket-Datasheet.pdf |
| Substrate | https://www.wallbarn.com/wp-content/uploads/2024/10/Wallbarn-Green-Roof-Substrate-Datasheet.pdf |
| Protective & Filtration Fleece (Geotextile) | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Geotextile-PPT-400-GSM-2.pdf |
| Drainage Layer (Protecto-Drain 20mm Perforated) | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Protecto-Drain-20mm-Perforated.pdf |
| Aluminium EdgeGuard | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Aluminium-Edge-Guard-1.pdf |
| Pebbles | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Pebbles-for-Green-Roofs-1.pdf |
| Inspection Chamber | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Inspection-Chamber-1.pdf |
| Leaf & Gravel Guard | https://www.wallbarn.com/wp-content/uploads/2024/09/Datasheet-Sombra-Gravel-Excluder-1.pdf |

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Rollout Sedum Green Roof System

Important Information to help you have an amazing Sedum Green Roof

- **Delivery Lead Times:** Typical lead times for the Rollout System can be as short as one week. However, we strongly recommend coordinating a delivery schedule with your Account Manager well in advance to prevent delays caused by weather or courier availability. We can accommodate various delivery requests, including Bronze, Silver, and Gold FORS. Articulated lorries, HIAB, and Moffett deliveries are all available. For commercial projects, having a forklift on site and a designated area for temporary storage is advised.
- **Site and Delivery Restrictions:** It is crucial to inform Wallbarn of any site or delivery restrictions before your order is confirmed. Your Account Manager is available to assist in creating a delivery schedule that aligns with your project timeline. We recommend receiving all materials except the sedum blanket first and installing them prior to the sedum delivery. Unloading, unrolling, and laying the sedum blanket on the same day it arrives is essential to ensure it adapts and flourishes as quickly as possible.
- **Best Practice Guidelines:** Wallbarn promotes the GRO Code, published by the non-profit Green Roof Organisation (www.greenrooforganisation.org), which outlines best practices for green roofs and walls in the UK. We advise reviewing this document to gain a deeper understanding of these practices.
- **Warranty:** As green roofs are living systems, proper installation is critical for their long-term success. Therefore, Wallbarn cannot offer a warranty on the system, with the exception of the protective and filtration fleece and the drainage layer.