

CONDITION TO BE DISCHARGED			
Project name	81 Hill way, N6 6AB	Doc no	17036 01
Date	201803	Rev	
Condition 5	Prior to commencement of any part of the relevant work, full details in respect of the living roof in the area indicated on the approved roof plan shall be submitted to and approved by the local planning authority. The details shall include: i. a detailed scheme of maintenance ii. sections at a scale of 1:20 with manufacturers details iii. full details of planting species and density	APP	2017/3800/P

## GREEN ROOF by Optigreen

<http://www.optigreen.co.uk/>

### Optigreen Wildflower and Sedum Mat



#### Details and Properties:

*Main Vegetation: Wildflower and Sedum  
May contain a small amount of naturally seeded grasses  
Thickness : Approx. 15-25 mm (not including vegetation)  
Weight : Approx. 20 - 25 kg/m2*

#### Area of application:

*Up to a maximum roof pitch of 20° on a slip-proof substructure*

#### Installation:

*- Level growing medium thoroughly before laying the blankets  
- Lay manually, always 2 persons per mat required  
- Dry, damaged, frosty or waterlogged blankets: Do not lay  
- Orientation: Diagonal or perpendicular to slope of roof  
- Joints: Butt together to prevent gaps. Do not stretch blankets.  
- Edges: Finish with whole blankets  
- Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.  
- Dressing: Brush in to fill joints  
- Watering: Thorough, immediately after laying and dressing until entire build-up is water saturated (30 litres/m2).  
- Subsequent watering: 2-3 times with 30 litres/m2, thereafter keep moist until fully rooted in*

#### Maintenance:

*See Optigreen maintenance instructions*

#### Storage:

*Mats that are not installed on the day of delivery must be rolled out and watered straight afterwards.  
Rolled-out vegetation mats can be stored for 1 - 2 weeks if kept moist.*

#### Delivery form:

*Rolled, on pallets*

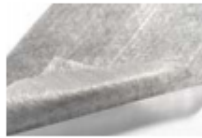
## Products and designs for green roof construction



**Optigreen seed type E and Sedum shoots**  
Seeds and plant components that form roots. Approx. 60-80% ground coverage after 1 year.



**Optigreen Extensive Substrate Type E (60-80 mm)**  
Vegetation base layer. Special blend of plant soil for green roofs.



**Optigreen filter fleece Type 105**  
Prevents fine particles from being flushed out of the substrate into the drainage layer.



**Optigreen solid body drainage Type FKD 25 (25 mm)**  
Water reservoir and drainage layer for discharging excess water. Prevents waterlogging.



**Optigreen protective fleece Type RMS 300**  
Protects the root-resistant waterproofing or Optigreen root-resistant sheeting against damage.

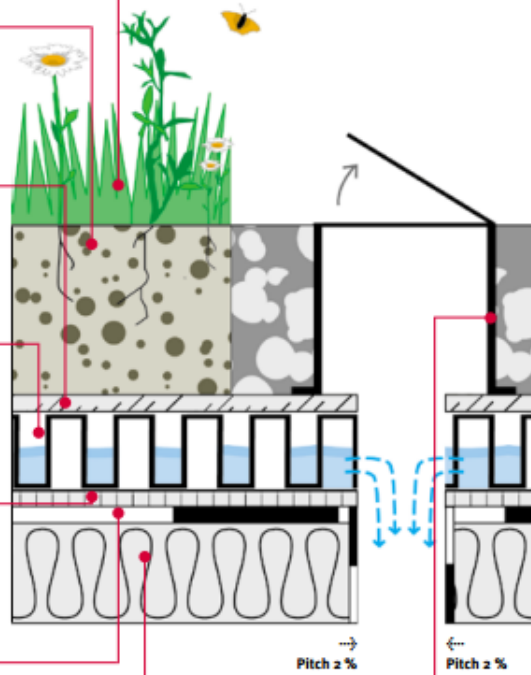


**Flagon roof resistant membrane**  
Prevents roots from penetrating the substructure (only necessary if waterproofing is not root resistant).

**Roof construction including waterproofing**  
Structure made from concrete, profiled sheeting or wood with sufficient weight-loading capacity and waterproofing. Usually without insulation for carports and garages.



**Optigreen small-area inspection chamber**  
Protects the roof drain from contamination. Lid removable for routine checks.



## Plants - Product Solution

For a 19m<sup>2</sup> roof it is economical to use a pre-grown mat that will typically contain 6-8 of these varieties:

- Sedum album coral carpet
- Sedum album murale
- Sedum lydium
- Sedum acre
- Sedum sexangulare
- Sedum hispanicum minus
- Sedum spurium fuldaglut
- Sedum floriferum
- Sedum kamschaticum
- Sedum hybridum immergrunchen
- Sedum reflexum

There are typically 8 from the above-mentioned species in any one turf.

### Sedum album coral carpet:



Flower period: June / July Maximum height: ca. 10 cm Colour of flowers: white

### Sedum album murale:



Flower period: June / July Maximum height: ca. 10 cm Colour of flowers: white

**Sedum lydium:**



Flower period: June / July Maximum height: ca. 10 cm Colour of flowers: pink / white

**Sedum acre:**



Flower period: June / July Maximum height: ca. 5 cm Colour of flowers: yellow

**Sedum sexangulare:**



Flower period: June / July Maximum height: ca. 5 cm Colour of flowers: yellow

**Sedum hispanicum minus:**



Flower period: June / July / August Maximum height: ca. 5 cm Colour of flowers: white / pink

## Care manual for Optigreen extensive greening

### Preamble:

Roof greening is only complete when so-called finishing care is carried out subsequent to applying the layered structure and vegetation. Finishing care takes approximately one year, after which the transfer condition is achieved and the roof greening can be entrusted to personnel authorised with further tending and development.

Care of roof greening should always be entrusted to trained personnel. It is imperative that measures to prevent falling are observed (these being necessary for buildings with a height of over 3 m).

### The following care and maintenance services may be required for extensive greening:

- § Removal of plants not indigenous to the location  
Newly-emerging saplings (e.g. birch, willow) and herbage (e.g. clover, dandelions, vetch, etc.) require removal every year. This is best achieved by pulling them out complete with the roots and prior to seeding. The plants should be removed from the roof.
- § Keeping margins, safety stripes, slabs and other surfacing free of undesired growth  
Removal of undesired plants not only applies to the actual greening surface, but also gravel strips, paths and adjacent terraces.
- § Mowing and removal of cut grass and leaves  
Low-level *sedum* vegetation with a minimal herbage content should be removed approximately every two years by mowing, with *sedum* grass and *herbage* vegetation being removed annually in September/October. Cutting height: approx. 7 cm. The cut grass and leaves should be removed and not left on the roof. Leaves from adjacent trees should also be removed.
- § Fertilising  
A long-term fertiliser with 5 g pure nitrogen (e.g. 50 g/m<sup>2</sup> Optigreen long-term fertiliser) should be applied evenly to the greening surface on an annual basis in the spring (April/May). Strong moss growth and evidence of reddish *sedum* in particular point to a nutrient deficiency.
- § Cleaning of inspection shafts, roof drains and other drainage equipment  
Inspection shafts and roof drains below these should be checked annually and freed of contaminants (ant nests, dirt, leaves, lime deposits and similar). The drainage cross section should not change. The same applies to drainage gutters.
- § Watering  
Extensive greening is usually not watered after finishing care (i.e. when the surface has been covered by more than 50% and is a year old). Watering is also unnecessary in normal cases during a hot and dry summer. Exceptions can be cases involving very thin greening layers (under 7 cm) and steep roofs under 10 cm exposed in a southerly direction.
- § Re-sowing and replanting of bare patches, refilling of substrate where necessary  
Roof substrate may require refilling and setting of suitable plug plants or sowing of seed + *sedum* shoots if patches (approx. larger than 0.5 m<sup>2</sup>) are not covered or erosion has occurred in areas. The most suitable period for this is April/May and, possibly, September/October.

§ Plant protection

Measures to protect plants should only be taken after consulting a specialist.

1 (September/October) to 2 (March/April and September/October) tending periods are generally necessary every year.

Please contact your regional Optigreen representative if you have any questions.