

## DATA SHEET: BLACKDOWN 60MM DRAINAGE LAYER

### PRODUCT CODES: 60+RS

#### DESCRIPTION:

60+RS consists of a perforated, single cusped HDPE (High Density Polyethylene) core with water retention reservoirs. After installation the 60+RS is infilled with a granular aggregate infill and overlain with a non-woven geotextile.

Rainwater escapes through the perforations in the sheets of 60+RS to flow into and along the underside channels of the 60+RS and away to the outlets. Its major application is in intensive roof garden drainage where 60+RS provides a drainage layer and water reservoir to sustain plant growth. 60+RS makes extensive use of recycled polymers in its construction.

60+RS is supplied in rolls of a dimension 0.92 x 15.2m.

#### Geotextile

A range of geotextiles may be used in conjunction with the core. The standard geotextile, which is supplied separately in rolls 4.5 m by 100m, has the following properties. This textile is water and root permeable. (Root impermeable, water permeable textile is also available)

|                            |                       |   |              |
|----------------------------|-----------------------|---|--------------|
| Type                       |                       | Non-woven long staple fibre needle punched & heat treated |              |
| Material                   |                       | Polypropylene   |              |
| Mass / unit area           | (g/ m <sup>2</sup> )  | 100   | EN ISO 9864  |
| Water flow at 50mm head    | (l/m <sup>2</sup> /s) | 110   | EN ISO 11058 |
| Breakthrough head          | (mm)                  | 0   | BS 6906 (3)  |
| Pore size O90              | (µm)                  | 130   | EN ISO 12956 |
| Static puncture resist CBR | (N)                   | 1400  | EN ISO 12236 |
| Chemical resistance        |                       | Highly resistant to all common chemicals                  |              |

| In-plane water flow MD and CMD      | 10%  | 3%  | 1%  | Hydraulic gradient |
|-------------------------------------|------|-----|-----|--------------------|
| at 20kPa confining pressure (l/m·s) | 12.5 | 5.5 | 2.5 | EN ISO 12958       |

|                                |                      |  |                                       |               |
|--------------------------------|----------------------|--|---------------------------------------|---------------|
| Thickness at 2kPa              | (mm)                 | 60   |                                       | EN ISO 9863-1 |
| Tensile strength               | (kN/m)               | 20   |                                       | EN ISO 10319  |
| Water reservoir volume         | (l/m <sup>2</sup> )  | 23   | (empty)                               |               |
| Water reservoir volume         | (l/m <sup>2</sup> )  | 11   | (when filled with drainage aggregate) |               |
| Mass/unit area (dry)           | (g/m <sup>2</sup> )  | 2,200  |                                       | EN ISO 9864   |
| Mass/unit area (infilled, dry) | (kg/m <sup>2</sup> ) | 45.4*  |                                       | EN ISO 9864   |
| Compressive Strength filled    | (kPa)                | Depends upon aggregate infill **   |                                       |               |
| Compressive Strength unfilled  | (kPa)                | 50   |                                       |               |
| Life expectancy                | (yrs)                | 120 years in pH 4 to 9 at 25°C   |                                       |               |
| Chemical resistance            |                      | Excellent resistance to common chemicals   |                                       | EN 14030      |
| Resistance to microbes         |                      | No significant effect  |                                       | EN 12225      |
| Compatibility with             |                      | Fully compatible. All components compatible with potable waterproofing membranes |                                       |               |
| Health, safety, environment    |                      | INERT. No known health hazard. No precautions necessary                          |                                       |               |

## Blackdown Greenroofs

**Address:** 3 Waggon Shed, Flax Drayton Farm, South Petherton, Somerset TA13 5LR

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#### Note

- The values given are indicative and correspond to nominal results obtained in our laboratories and testing institutes. In line with our policy of continuous improvement the right is reserved to make changes without notice at any time.
- The tolerance on roll length is 1.5% and on roll width is 1.0%.
- Guidance on interface shear strength, creep and certain other parameters is available. Site specific tests are strongly recommended.
- Final determination of the suitability of any information is the sole responsibility of the user. Blackdown will be pleased to discuss the use of this or any other product but responsibility for selection of a material and its application in any specific project remains with the user.
- Non-load bearing walls can be built off 60+RS.
- Please refer to separate sheets for fixing instructions. A COSHH certificate is available on request.
- \* When using 10/20mm stone aggregate.
- \*\*The compressive strength of 60mm drainage layer together with a 10/20mm stone aggregate infill has a compressive strength at 20% strain which is in excess of 500kN/sqm.

END

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