

green roof vegetation mats

A range of biodiverse, colourful and drought tolerant green roof vegetation mats.

Working closely with the University of Sheffield's Dr Nigel Dunnett and the Green Roof Centre, Lindum has developed various mixtures of wildflowers, sedums, perennials, herbs and grasses designed to flourish in the conditions created on different types of green roof.



Lindum Green Roof Mats

All Lindum's green roof vegetation mats are supplied ready-to-roll-out as an instant vegetation layer, with the plants established and growing in a biodegradable felt mat made from recycled British textiles. They are lightweight, easy to install and low maintenance, available in varying roll sizes to suit site requirements and suitable for use with a lightweight green roof substrate.

Lindum can offer a complete green roof package, including lightweight substrate and drainage layer. For further details see the back of this sheet.



Bumblebees

Research has shown that wildflower green roofs attract twice as many bee species and five times as many blossom visits compared to pure sedum roofs.

Vegetation mat options



Lindum Wildflower and Sedum Mat

Features: A mixture of drought tolerant wildflowers, herbs, sedums and flowering perennials to produce a biodiverse and colourful alternative to traditional sedum, with a prolonged flowering period, from April to September. Flowering height is 20-30cm.

Benefits and uses: As an alternative to pure sedum it combines the drought tolerant aspects of sedums with the colour and ecological benefits of wildflowers and other species, attracting a wider range of birds, bees, butterflies and invertebrates.

Mixture: A range of wildflowers including Oxeye Daisy, Lady's Bedstraw, Cats Ear and Yellow Camomile, pink flowering perennials for spectacular colour, herbs and three sedum varieties for extreme drought tolerance in case of continuous dry weather.

Maintenance: One light cut in late autumn removing all cuttings.

Substrate: Extensive lightweight green roof substrate at a depth of 75-100mm but can be varied to allow shallower pockets which encourage variation in species composition.



Lindum Wildflower and Meadow Grass Mat

Features: An attractive mix of native wildflowers and grasses to provide the appearance of a true wildflower meadow on a roof. Flowering from April to September. Flowering height is 40-60cm.

Benefits and uses: An ideal mixture to complement the local habitat or to replace the habitat lost by the footprint of the building. Flowering is over a prolonged period creating visual interest and offering an excellent habitat for insects, butterflies and birds.

Mixture: Twenty species of drought tolerant native wildflowers including Cowslip, Lady's Bedstraw, Meadow Buttercup, Red Campion, Self Heal, Yarrow and Yellow Rattle, mixed with non-aggressive meadow grasses.

Maintenance: One main cut in late autumn, removing all cuttings. A spring cut may be advisable if the grasses become too dominant.

Substrate: Extensive lightweight green roof substrate at depth of minimum 100mm. Wildflowers are drought tolerant species and the percentage of grasses will vary according to substrate depth and natural rainfall.



Lindum Low Maintenance Grass Mat

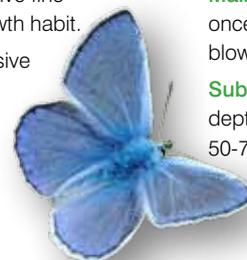
Features: An attractive drought tolerant fine turf with slow growth habit, Can be close mown or left for a natural grassland look.

Benefits and uses: Because of the unique slow growing properties of the mix, this mat is ideal for extensive green roofs requiring a grass finish.

Mixture: A mix of slow growing, drought tolerant grass species – Crested hairgrass, Hard fescue and Red fescue, which thrive in dry, low fertility conditions.

Maintenance: The turf can be mown or unmown. If unmown, it will flower in late May to early June producing decorative seed heads, reaching a height of about 200mm by autumn, when it should be cut and the clippings removed. If mown, the result is an attractive fine turf with slow growth habit.

Substrate: Extensive lightweight green roof substrate at a depth of 100-125mm.



Lindum SedumPlus Mat

Features: An attractive mix of more than 16 varieties of sedum with differing colours and leaf forms for low maintenance and extreme drought tolerance.

Benefits and uses: Ideal for lightweight green roofs, as sedums are drought tolerant and therefore need only a shallow substrate layer. Also suited to situations that need low growing plants and minimal maintenance.

Mixture: Sixteen varieties of sedum to add colour and create visual interest. Colours range from greens through to vibrant reds, oranges, browns and purples. The mixture also offers many different leaf types which results in beautiful textures when planted together.

Maintenance: Light hand weeding once or twice a year to keep out wind blown seeds.

Substrate: Minimum substrate depth is 30mm although depths of 50-75mm will allow for stronger and more attractive growth.

For more information see www.lindumgreenroofs.co.uk

Lindum's Green Roof Package



Lindum's green roof package consists of vegetation layer, plus GT4 substrate, which contains award-winning recycled topsoil, and Roofdrain drainage layer (incorporating a geotextile filter membrane), to sit above the waterproof membrane.

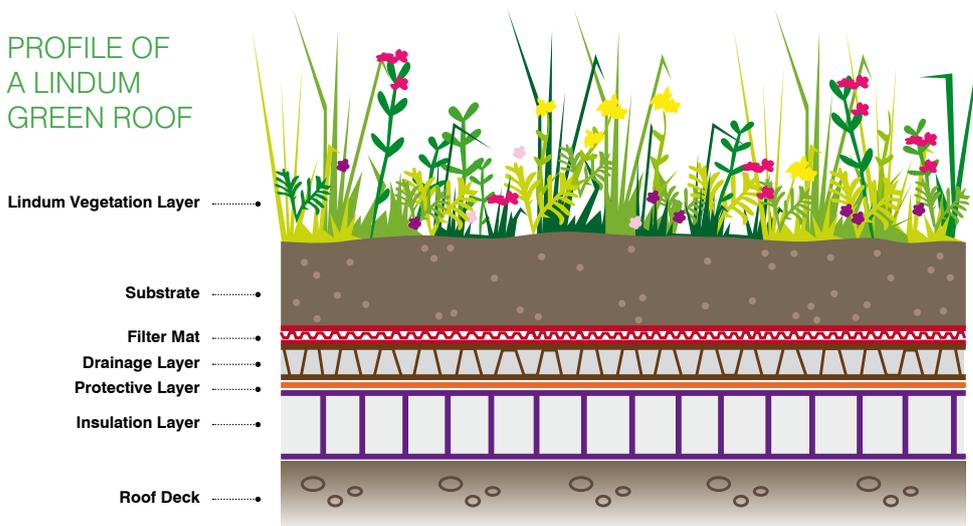
(Please note: waterproof membranes without a lifetime root penetration guarantee will require an additional root barrier layer.)

GT4 Substrate

GT4 green roof substrate is a mix of lightweight LECA (light expanded clay aggregate) particles and one third award winning recycled topsoil, blended to produce a high performance extensive green roof growing medium. The topsoil is a sustainable compost blend consisting of organic matter, green compost and silica sand, which conforms to current BS3882:2007 standards. The GT4 substrate is free draining whilst also offering good water holding capacity.



PROFILE OF A LINDUM GREEN ROOF



Further information about green roofs is available from www.thegreenroofcentre.co.uk



The University Of Sheffield.



Roofdrain drainage layer

Roofdrain consists of a perforated cusped recycled HDPE (High Density Polyethylene) core with selected geotextiles thermally bonded on each side. The core acts as a water reservoir for plant roots to access in dry periods. The core is perforated to allow excess rainwater to flow into the underside and away to drainage outlets. The upper textile prevents any fine particles from the substrate blocking the drainage layer, and the lower textile protects the waterproof membrane. Roofdrain is ideal for extensive green roofs as it provides a lightweight drainage layer and water reservoir to sustain plant growth.

Installation

Lindum's green roof package is designed to be a simple system that is easy to install. Lindum can supply direct for self-installation, or can supply to the roof installers. The package can be installed on flat roofs and on pitched roofs up to 30° without additional irrigation. Slopes of over 25° may require additional slope stabilisation measures to avoid slippage of substrate and may require additional anchoring of the vegetation layer. Lindum can supply slope stabilisation options if required.

Lindum's green roof package has a combined saturated weight of approximately 110-135kg/m²:

- Roofdrain drainage layer: 10kg/m² saturated weight
- GT4 substrate
 - at 50mm (recommended minimum for SedumPlus Mat): 39kg/m² saturated weight
 - at 75mm (recommended minimum for Wildflower & Sedum Mat): 59kg/m² saturated weight
 - at 100mm (recommended minimum for Wildflower & Meadow Grass Mat): 78kg/m² saturated weight
- Vegetation layer: 25kg/m² saturated weight

The vegetation layer must be watered immediately after installation. The vegetation layer must not be allowed to dry out during the establishment period.

Lindum works closely with a number of specialist green roofing contractors and waterproof membrane suppliers – details can be provided on request.



Contact

Lindum Turf, West Grange,
Thorganby, York, YO19 6DJ

t: 01904 448675

f: 01904 448713

e: info@lindumgreenroofs.co.uk

w: www.lindumgreenroofs.co.uk