Ref: SEDUM60-80
V1 24/01/2025

Bitumen Waterproofing
Hot Melt Waterproofing
Liquid Waterproofing

Technical Data Sheet

HYDROSOIL® SEDUM LIVING ROOF SYSTEM

Comprising a water retention and drainage layer with bonded filter fleece, engineered growing medium and sedum blanket or mixed plugs plants

Axter's living or green roof systems are designed to accommodate the most varied ecological and environmental requirements. The combination of long-term system performance with horticultural expertise ensures full compliance with national, local and project specific environmental biodiversity and attenuation criteria.

A living roof, as well as being an aesthetically pleasing addition to a building, offers many other advantages:

- Increased biodiversity, creating habitat for birds, bees and invertebrates.
- More usable space on the roof (for gardens, amenity, play and educational areas, for example).
- Less urban heat island effect.
- Reduced rainwater run off flow rates.
- Better air filtration.
- Increased sound insulation and thermal efficiency.

Extensive living roofs are not usually trafficked but are intended to be visual or ecological features. Typically, they have thin substrate layers to minimise depth and weight and are designed to be low maintenance with slow growing vegetation. They are often created to provide habitat for flora or fauna and to enhance building performance by reducing rainwater flow rates and increasing thermal efficiency.

Key benefits

- Provides biodiversity for flora and fauna.
- Visually appealing; minimal maintenance required.
- Can be installed on flat or sloping roofs.
- Thin soil substrate.
- Self-sustaining vegetation such as succulents, grasses and wildflowers.

Soils or substrates for extensive living roofs are usually of a low nutrient type thus suppressing the growth of invasive weed species and of minimal thickness. Plants are selected for their ability to thrive in such conditions and to establish a self-sustaining living roof. Sedum and wildflower mats, pre-grown trays or plug plants can all be incorporated into an extensive design.

Hydrosoil® Sedum Living Roof system components

- Water retention and drainage layer with fleece (20mm).*
- Extensive substrate layer 60mm - 100mm (substrate surface contour +/- 20mm).*
- Sedum Blanket.*
- Mixed plug plants (18 / 20 plugs/m^2 - sedum, mixed wildflowers).*

*Refer to separate Axter Technical Data Sheets:

TDS-Axter-Hydrosoil Drainage Board 20

TDS-Axter-Hydrosoil Substrates

TDS-Axter-Hydrosoil Blankets & Plugs

TDS-Axter-Hydrosoil Accessories

Maintenance

Refer to Axter's Living Roof Maintenance Guide.

Design considerations

A living roof calls for a robust waterproofing system able to withstand the increased loads and suitable for the building structure.

Saturated Weight
60mm – 109kg/m² saturated weight
80mm – 134kg/m² saturated weight

The waterproofing for sedum roofs can be either of a warm or inverted construction. Axter has an extensive choice of BBA / ETA certified, tried and test, high performance waterproofing systems designed to fulfil this function (Cityflor, Wilotekt-Plus and Starcoat PMMA).

Each living roof is different, so we design bespoke solutions drawing on our many waterproofing options and including in the specification the planting selections best suited to the environment to ensure all roof and surrounding area criteria are met.

The following points must be included in the living roof design:

- Roof to be capable of supporting the design load.
- Adequate provision to drain excess rainwater.
- Safe access for maintenance.
- Robust and durable roof waterproofing.
- Root resistant membranes must be considered.

For further assistance with living roof design, specification, installation and maintenance, contact Axter.