

Technical Data Sheet

HYDROSOIL® BIODIVERSE LIVING ROOF SYSTEM

Comprising a water retention and drainage layer with bonded filter fleece and contoured growing medium

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.

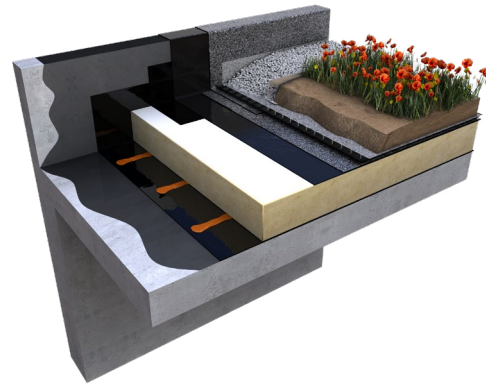
A living roof, as well as being an aesthetically pleasing addition to a building, offers many other advantages:

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



Biodiverse living roofs are designed to create a habitat for a specific requirement of flora and fauna and are generally designed as part of an extensive green roof. They are often designed to replicate the original footprint of the building or are created to enhance the pre-development habitat with additional plant species.

Axter supplies specialist growing medium to suit the requirements of the planting regime. Various habitats can be created by contouring the soil, providing different substrates, soil, rocks, sand, gravel, crushed concrete and by adding features such as rotting wood and ponds. More information can be found in Axter's Hydrosol Microhabitat Accessories Technical Data Sheet. The aim is to develop a number of different environments on the roof, each favouring different species and increasing biodiversity.



Key benefits

- Landscaped areas with different contour levels attract different wildlife.
- Increases indigenous biodiversity of the development site.
- Logs provide habitat for invertebrates.
- Wetland areas and ponds provide ecosystems for wildlife.

Hydrosol Biodiverse Living Roof System components

- Water retention and drainage layer with fleece (20mm).*
- Biodiverse substrate layer 100mm (substrate surface contour +/- 20mm) fauna biodiversity.*
- Environment specific plug plants (15-20 plants/m²).*
- Biodiverse Seed Mix (broadcast rate 2-3g/m²).*
- Microhabitat creation (seasoned logs, rocks etc).*

*Refer to separate Axter Technical Data Sheets:

TDS-Axter-Hydrosol Drainage Board 20

TDS-Axter-Hydrosol Substrates

TDS-Axter-Hydrosol Blankets & Plugs

TDS-Axter-Hydrosol Seed Mix

TDS-Axter-Hydrosol Microhabitat Accessories

TDS-Axter-Hydrosol 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

100mm – 125kg/m² saturated weight

The waterproofing for biodiverse and brown 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 living finishes 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.

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