

# Technical Data Sheet

## HYDROSOIL® LAWN LIVING ROOF SYSTEM

### **Comprising a water retention and drainage layer with bonded filter fleece, topsoil and high quality lawn turf**

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:

- 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.

Intensive living roofs are principally designed for their amenity value, creating spaces that can be used for playgrounds, parks, rooftop gardens and for people to enjoy. With careful design, lawns, beds, shrubs, trees, hard surfaces and many other features can be incorporated into an intensive living roof and Axter's design expertise helps clients to be imaginative in how they use their roofs and to take an integrated approach to the specification and design of the waterproofing and landscaping options.

## Key benefits

- Ideal for elaborate roof garden designs.
- Fully accessible - playgrounds, podiums, gardens, educational and sports areas.
- Can include trees, lawns, hard paving, water features.
- Achievable on flat roofs only.
- Integrated irrigation and regular maintenance required for landscaping.

High quality, pre-grown lawn turf	
Roll size	1m x 2m
Plant Mix	Standard Medallion Turf
Vegetation coverage at installation	min 90%

Can be combined with optional hard mixed surfacing such as, hard landscaping, recreational areas, pedestrian access etc.

## HYDROSOIL LAWN LIVING ROOF SYSTEM COMPONENTS

- Water retention and drainage layer with fleece (40mm).\*
- Lightweight topsoil to a minimum depth of 250mm.
- High quality pre-grown lawn turf (1m x 2m rolls).

\*Refer to separate Axter Technical Data Sheets:  
TDS-Axter-Hydrosoil Drainage Board 40  
TDS-Axter-Hydrosoil Substrates  
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.

Weight*	
Dry weight	284kg
Saturated	427kg
*Based on:	<ul style="list-style-type: none"> <li>• 40mm Drainage Board.</li> <li>• Filter Membrane.</li> <li>• 250mm (settled depth) Intensive Substrate.</li> <li>• Lawn Turf (Indicative Industry Weight).</li> </ul>

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).

Roofs are harsh environments for plants and although Axter advises the use of reservoir boards to conserve and control water flow beneath the soil, the inclusion of a 'leaky pipe' in the design will help keep the plants alive in dry periods.

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.

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