metroSTOR®
outdoor storage systems

metroSTOR Green Roof Systems

Green roofs reproduce varied ecosystems by using advanced materials and production techniques to ensure their success. They provide a great opportunity to create pockets of biodiversity, encouraging a wide range of bees, insects, birds and butterflies, particularly in areas where the habitat has been eroded by urbanisation.

Green roof structures can bring the enriching and enlightening natural world closer to our everyday lives while helping to safeguard our environment and its fragile ecosystems.

metroSTOR Green Roof Buildings

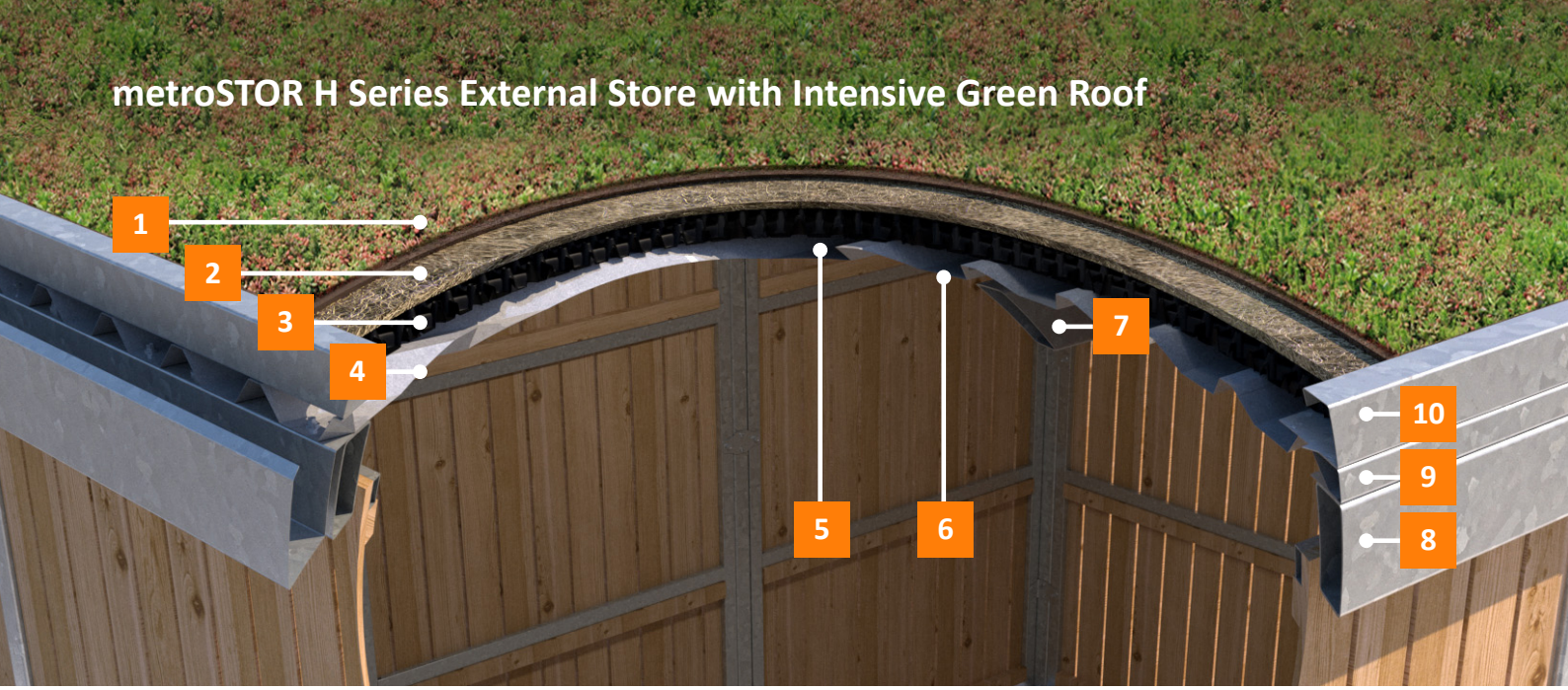
While lightweight green roof design for smaller structures is not new and there are specialist suppliers of the components that enable growing mediums to support successful establishment, it takes serious design know-how to bring this together into an efficient deliverable product.

With green roof structures designed and manufactured alongside our canopy and street furniture production, a cost effective solution with the growing system specified correctly, a compliant structural design and a cohesive overall aesthetic is achieved.

The sedum roof we use on our smaller structures is usually a lightweight system, meaning that it has a shallow substrate which is relatively lightweight and capable of supporting drought-tolerant species such as low-growing mosses and sedums. Installed as a pre-established turf, there are minimal establishment issues and ongoing maintenance requirements are limited to annual weed removal.

For larger projects we can specify an intensive system boasting wildflowers, particularly those native to calcareous grassland, along with sedums, giving a more diverse sward and greatly extended flowering season. The spectacular flower display is very attractive to bees and butterflies, and leaving the vegetation uncut during the winter provides a food source for seed-eating birds and shelter for a wide range of invertebrates.

metroSTOR H Series External Store with Intensive Green Roof



1 Sedum-Mix Blanket
A pre-grown vegetation mat specifically designed for green roofs, sown with a blend of stunning varieties of sedum to provide extended interest and colour throughout the flowering period. Sebaceous sedum plants are adept at storing water in their leaves and are therefore extremely suitable for varying weather conditions.

2 Green Roof Substrate
A growing medium made of virgin rock mineral wool fibres specially needled to form a 40mm deep compact and dimensionally stable felt, ensuring excellent water retention and conservation.

3 Drainage Reservoir System
A double-sided drainage and reservoir layer made from recycled high-impact polystyrene. Panels are perforated on one side to allow high levels of water retention and buffering of water in the summer month with rapid drainage of water in wet periods.

4 Root Membrane
A geotextile lining sheet preventing any damage to the waterproof liner during installation or establishment phases.

5 Waterproof Liner
Single sheet SealEco 0.75mm EPDM liner which is 100% synthetic and UV resistant with excellent puncture resistance.

6 Profiled Steel Roof Sheet
Galvanised 0.7mm steel sheet in 32/1000 box profile installed as single sheet in length.

7 Structural Steel Subframe
Designed and manufactured in accordance with BS EN 1090 EXC2 from mild steel SHS/RHS sections and hot dip galvanised to EN ISO 1461.

8 Structural Steel Outer Beam
Designed and manufactured in accordance with BS EN 1090 EXC2 from mild steel RHS sections and hot dip galvanised to EN ISO 1461.

9 Profiled Steel Liner Integral Flashing
Manufactured from pre-galvanised steel sheet folded to profile to seal liner sheet to outer beam. Optional powder coated finish available.

10 Green Roof Integral Flashing
Manufactured from pre-galvanised steel sheet folded to profile to retain green roof build up. Optional powder coated finish available.

Green Roof Benefits

CO_2 Reduction
Green roofs help to reduce the amount of CO_2 in the air, with 1m2 of green roof able to absorb 5 kg of CO_2 yearly. As a perspective, $1m^2$ of green roof can absorb the same quantity of CO_2 as a regular car would emit during a 80km drive.

Rainwater Retention
Green roofs can help absorb rainfall that would normally run straight off hard surfaces, helping decrease the storm water burden on our sewer systems.

Cleaner Air
The green plants reduce the ‘urban heat island effect’, helping combat the effects of pollution, absorbing noise, trapping dust, recycling carbon dioxide, absorbing and breaking down many gaseous pollutants.

Increased Biodiversity
As urbanisation increases, green roofs can provide a habitat for various species and help restore the ecological cycle disrupted by urban infrastructure.

Natural Design
The natural character of green roofs provides relief from the concrete construction in urban areas and can bring health benefits to the local community with a relaxing psychological effect, helping to reduce blood pressure and lower the heartbeat.

Making Green Roof Buildings Easy to Specify

At metroSTOR our goal is to make the process of specifying products that reduce fire risk, reduce waste costs, increase recycling and improve environments, as simple and straightforward as possible.

Detailed drawings for the product range are available to download in PDF or various CAD formats with most metroSTOR products available to download as a BIM objects from our website as well as the NBS National BIM Library, enabling complete integration with your Building Information Model at every stage of the project lifecycle.

Detailed installation guidelines can be downloaded providing details of groundwork requirements, as well as instructions for installing and relocating metroSTOR units. A datasheet is available for each metroSTOR product with example images, dimensions and details of all available cladding and access control options, ideal for use in resident consultations and planning applications.

metroSTOR offer CPD resources in various formats, including lunch and learn session, webinars and videos and books with safety and design guidance. These help your team gain a better understanding of how external storage can be used to resolve many common and dangerous issues in your properties.

Our library of case studies is available for your inspiration, highlighting examples of best practice for external storage in social housing environments, as well as many other sectors where modular storage units are installed.

If you are putting a project out for tender with external storage requirements, NBS specification references are available for all units. These can be found on NBS Plus or are downloadable from our library. Our technical team can also create references for bespoke items to ensure exactly what you specify is installed on site.

RIBA CPD Providers Network

NBS Plus

NBS National BIM Library

Case Study - Bourne Business Park, Weybridge Surrey

AJ100 architects tp bennett specified two identical metroSTOR PBH48.50 Bin Room Buildings with integral extensive sedum green roof systems on the 90,000ft² office space development at 300 and 400 Dashwood Lang Road.

VIEW FULL CASE STUDY

Speak to one of the team today to find out more on our green roof buildings.

Call the team on 01227 200404 or enquire online

CONTACT US

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