



SIG Built-up Green Roof Systems

VerdiRoof – horticulturally engineered green roofing system by Verdico



Green roofs have become an established method of improving the environmental performance of flat and pitched roofs, providing a wide range of tangible benefits to built and natural environments.



Built-up Green Roof Systems

The term 'green roof' covers many terminologies: living roof, brown roof, biodiverse roof, Sedum roof, eco-roof, grass roof, turfed roof, vegetated roof etc. But, essentially, green roofs are roofs designed to support vegetative growth and can include hard landscaping solutions.

SIG Design & Technology, in conjunction with Verdico VerdiRoof green roofs, can provide guaranteed built-up systems that replicate the natural growing environment for plants, creating lush, vibrant, biodiverse environments that can transform both new and refurbishment projects.

Typical applications include:

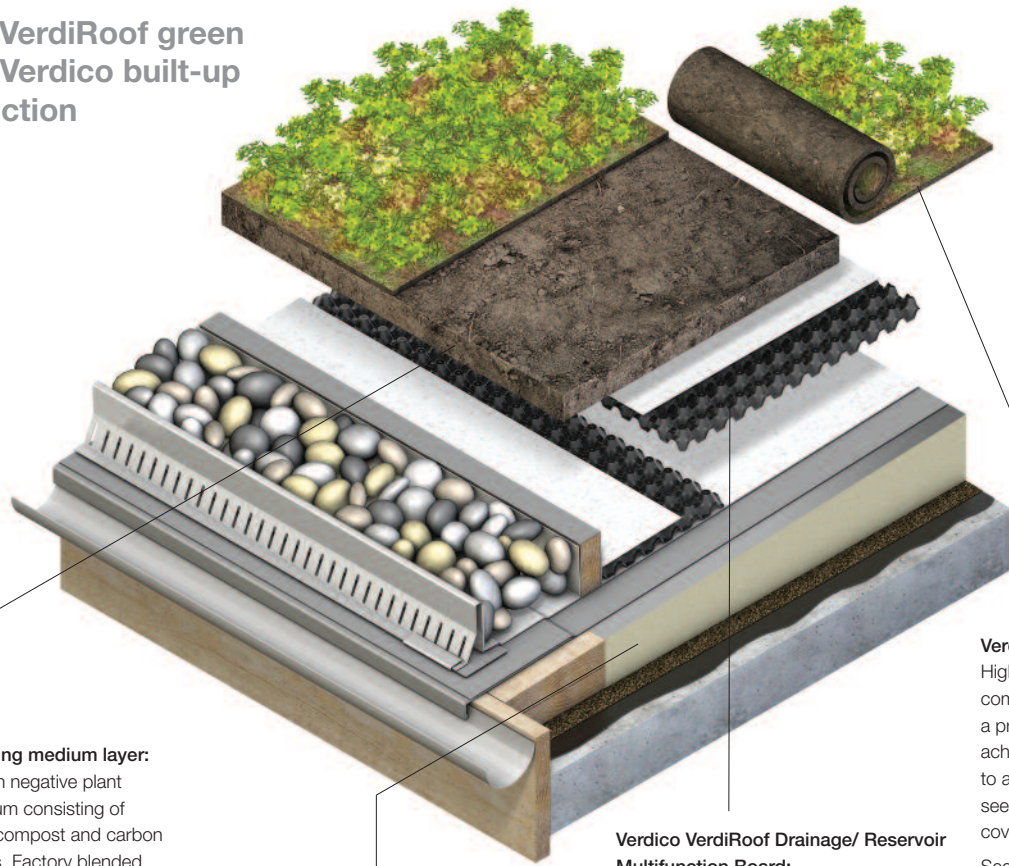
- Schools
- Offices
- Healthcare
- Military installations
- Sports facilities
- Flats and condominium roof terraces
- Domestic properties

Benefits

- Substantially increases the life expectancy of the roof's waterproofing membrane (protecting it from UV degradation and climate extremes)
- Improves energy efficiency in a warm roof construction
- Improves sound insulation by as much as 8dB compared with conventional roofs
- Reduces rainwater run-off – assists with storm attenuation and may act as a tool in your SUDs strategy
- Reduces heat build-up in urban areas
- Provides an additional green space for wildlife and creates biodiversity
- Improves air quality by absorbing airborne pollutants
- Makes good use of space – optimising the 'structural footprint'
- Is aesthetically pleasing
- Only installed by DATAC accredited contractors – trained to SIG Design & Technology's highest quality standards.



Typical VerdiRoof green roof by Verdico built-up construction



A high quality of installation is guaranteed by expertly trained DATAC accredited contractors, while the green roof total system can be guaranteed when installed and maintained by BBS Green Roofing Ltd.

Verdico growing medium layer:

Verdico carbon negative plant growing medium consisting of pumice, bark compost and carbon capture pellets. Factory blended and stabilised against de-mixing, it provides a high total pore volume balanced with good nutritive substance buffering for exceptional plant germination and growth, while providing a carbon negative figure of 7kg/m³.

Warm roof construction:

SIG offers a range of durable and high performance, built-up systems to support green roofs and to maximise longevity and sustainability.

Rhepanol Hg single ply membrane is specifically designed to be used with green roofs and has exceptional green credentials.

Verdico VerdiRoof Drainage/ Reservoir Multifunction Board:

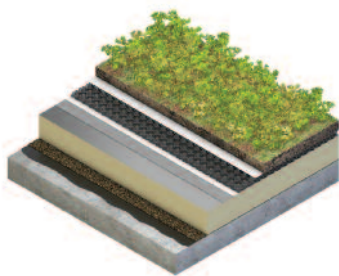
A water reservoir with quick drainage properties made from recycled high density polystyrene to be used in conjunction with the moisture retentive protective fleece underneath to underside and geotextile filter mat to the upper side. This protects the waterproofing whilst ensuring that water is both retained to help sustain plant life and rapidly drained to avoid water logging of the substrate. The cups sheets improve handling, making it easier to install.

Verdico plant layer:

High quality self sustaining plant community achieved through either a pre-grown blanket for speed of achieving green cover, plug planting to achieve species diversity or seeding to achieve lower cost plant cover with a longer growth period. See page 4 for more information.

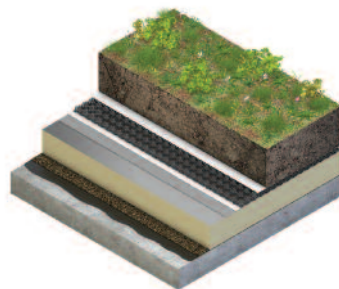
Types of green roof

Green roofs are generally categorised as being either 'extensive', 'biodiverse' or 'intensive'. They vary in cost, usage, the level of maintenance required, but also components used in the construction of the green roof itself - and possibly the building's structure.



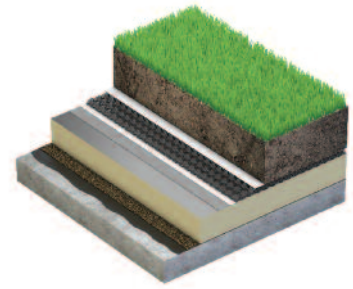
Extensive green roofs

Designed to reap the benefits that green roofs offer but at minimal cost and with very little maintenance. A shallow layer of growing medium is used to support low growing, stress-tolerant plants (e.g. sedums) that can generally look after themselves. Their lighter weight makes them suitable for use in both new and refurbishment roof construction.



Biodiverse roofs

Low maintenance roofs designed to create or replace natural 'habitats'. Biodiverse roofs can be specified to meet local Biodiversity Action Plans or to support specific flora and fauna, including Bats, Bees, Butterflies etc.



Intensive green roofs

Sometimes called 'roof gardens', these are at the other end of the scale and are often designed to provide recreational space for the building's occupants. They may contain a variety of plants, shrubs and trees, but will need as much care and maintenance as any garden. In addition, large plants need more growing medium which means the building's structure will have to be engineered to take the additional weight.

Planting layer options:



Verdico Pre-grown Blanket: Through Verdico's horticultural expertise, VerdiRoof planting can be tailored to a specific project's requirements, be they enhanced BREEAM rating, local Biodiversity Action Plan (BAPs) or simply enhancing the local environment. Below are two examples of how planting can be achieved. For specific support contact SIG Design & Technology today.

Verdico sedum blanket, 25mm thick, consisting of approximately 10 species for every 30m² with a minimum 85% mature cover on installation.

Verdico wildflower blanket, 25mm thick, consisting of various species with a minimum 85% mature cover on installation.



Verdico VerdiRoof Plug Planted System:

Diverse species of hardy succulent plug plants and native wildflowers are installed at a density of 15-20 per m² to provide a maximum of 10% plant coverage at installation.

These are ideal for use on:

- green roofs with specific biodiverse objectives
- green roofs seeking a unique appearance, often serving a promotional purpose.



Verdico's VerdiRoof Seed System:

A choice of roof tolerant wildflowers, grasses and sedum cuttings. The plant cover will germinate and grow (typically over 2 to 3 growing seasons) to deliver the long-term benefits of a green roof. Particularly suited to restricted budgets and large roof areas.

Consists of cuttings and rhizomes and wildflower seed material distributed onto a primed substrate of growing medium.

Verdico VerdiRoof Growing Medium:

VerdiRoof Extensive is a specialist mineral based plant growing medium consisting of pumice, bark compost and carbon capture pellets. Factory blended and stabilised against de-mixing VerdiRoof Extensive substrate provides a high total pore volume balanced with good nutritive substance buffering for exceptional plant germination and growth.

VerdiRoof Drainage/Reservoir Multifunction Board:

Verdi-Drain25 high capacity reservoir with quick drainage properties made from recycled high density polystyrene. 25mm deep dual cusped and perforated.

VerdiRoof Particle Filter:

Verdi-Drain-F 150g/m² particle fleece to separate VerdiRoof growing medium to avoid saturating the root-zone.

VerdiRoof Moisture/Protection Layer:

Verdi-Drain-U 300g/m² Moisture retention layer which also protects the waterproof layer.

Rhepanol hg: Rhepanol hg is a high quality single ply membrane with excellent green credentials, designed especially for green roofs.

With its hot air welded laps, Rhepanol hg is root and rhizome resistant to the full FLL certification and is the only single ply membrane to have a full life cycle assessment to 14040FF.



SIG Design Technology
Mannheim House
Gelders Hall Road
Shepshed
Leicestershire LE12 9NH

Tel: 01509 505714
Fax: 01509 505475

www.singleply.co.uk



<http://goo.gl/b7MCy>

If you have a smart phone and internet access simply download a free QR reader from your app store, scan the code and enter your details for a quick response or browse our web site for more information regarding SIG Design and Technology.

Design & Technology: SIG Design Technology is a part of SIG Roofing, a leading division of SIG plc, a FTSE 250 listed company and the UK's market leading specialist supplier to professionals in the building and construction industry. SIG Design Technology is at the forefront of design, supply and guaranteeing exclusive 21st century roofing solutions. Every component is carefully tested and selected for its sustainability, functionality, longevity and/or aesthetic strengths to guarantee total roofing solutions from inspiration to installation.

Verdico: Verdico is a partnership which brings together over 60 years of combined roofing, landscaping and horticultural experience. We specialise in the manufacture, supply and distribution of inspirational roof finishing products for the sustainable roofing industry.

DATA accredited contractors: The DATA scheme is a membership of expert and fully-trained contractors, with exclusive access to the specialist range of SIG Design Technology high performance roofing products, systems and warranties that are not available to any other contractor. This ensures that SIG systems are installed to the highest standards. Only DATA accredited contractors are allowed to install SIG built-up roofing systems.

For comprehensive design and specification support contact SIG Design Technology or go to www.singleply.co.uk.