



FAQ for Rollout Green Roofs

What is a Rollout Green Roof?

The roll-out green roof is a low-maintenance system featuring sedum. Instead of arriving as a pre-assembled unit, each component is delivered individually and then layered during installation. For this reason, a qualified landscaper or green roof installer should be used.

These green roofs usually have a shallow growth medium, about 80mm deep, predominantly planted with drought-resistant plants like sedums. We also offer a wildflower blanket as an option but this will require a deeper substrate level of 150mm and thus, the weight is increased.

Such roofs, known as Extensive Green Roofs, are prevalent due to their self-sufficiency. They aren't made for foot traffic but are beneficial for enhancing air quality, moderating rainwater runoff, aiding in water harvesting, and bolstering both the acoustic and thermal attributes of the roof. Moreover, these roofs are light, typically bearing weights between 80 – 120kg per m² when saturated. The typical Wallbarn Extensive Green Roof includes a protective fleece (for the roofing membrane, drainage & reservoir layer, Filter fleece, a lightweight growth medium/substrate, aluminium edge profiles, and a vegetation layer. Rounded pebbles will most likely be required to act as fire breaks around rooftop features such as rooflights and around the perimeter.

Do Green Roofs help with planning permission?

Yes. There has been a definite move from planning authorities to encourage green roofs and sustainable construction methods in recent years., so incorporating a green roof into the plans for any new build can help with the approval process.

In general, a green roof does not need planning permission. However, it is recommended that owners always check with the local authority beforehand in case the building is in conservation area or if it is a listed building.

Incorporating a green roof into the plans for any new build can nowadays ease the approval process as it is seen as desirable aspect for many councils.

Before you plan your green roof, though, you need to consider there are no specific building regulations relating to green roofs, there may be issues concerning load capacity, fire prevention or the disposal of water from the surface of the installation.



Green roofs can also increase the sustainability scores for new buildings and can gain credits with BREEAM (Building Research Establishment Environmental Assessment Method), particularly within the land use and ecology section.

Does the roof have to be flat to lay a green roof?

Most green roofs are installed onto flat roofs, although the term flat roof is often misunderstood by the public. The roof does not need to be dead flat, in fact the roof should fall to a certain degree to allow free drainage of rainwater beneath the green roof system. Roof decks which fall 1 in 80 to 1 in 40 fall are the most common types.

Wallbarn recommends green roofs are installed up to a 12° pitch without modification being required.

For roof decks with a fall greater than 12° pitch installers would need to ensure the whole system is sufficiently anchored to the sub deck.

Blue Roofs will have a dead flat roof space / subdeck and the stored water within the Blue Roof needs to build up with the adjustable drainage outlet providing the exit.

What is the minimum depth of substrate?

For extensive green roof systems (including sedum roofs) Wallbarn recommends a minimum of 100mm (4 inches) of substrate. Some green roof suppliers offer much lower build ups of substrate (down to 40-50mm in some cases) but in our opinion this will not be sufficient to sustain the plants in the long term.

Beware low build up systems which offer solutions to planning, weights or cost savings. Always ask for data on long-term performance of a green roof system – what does it look like after 2 years, 5 years?

The 2020 Amendments in Approved Doc B of The Building Regulations 2010 include a fire safety assumption of using a minimum of 80mm substrate, as does the GRO Code 2021; so green roofs should not be constructed with a substrate level, less than 80mm.

Wallbarn has conducted numerous physical growth tests on its substrate mixes and it can demonstrate how and why a minimum substrate depth of 100mm should only ever be considered.



What sort of substrate should be used?

An engineered growing medium designed to encourage strong, healthy growth of sedum and other plants on a roof space. It is made up from sustainable, recycled, mainly UK sourced materials to create a lightweight and free draining substrate free from weeds and contaminants.

Important aspects required are:

- a. an optimum level of nutrient to suit the type of green roof being constructed; low organic content;
- b. varied aggregate particle size; a balance between draining and moisture retention;
- c. resistance to compaction and erosion;
- d. avoidance of peat in the mix;
- e. avoidance of impurities and contaminants within the mix;
- f. adherence to green roof codes, standards and regulations (see section 6);
- g. weight / depth;
- h. long-term sustainability & healthy growth of plants

What depth of drainage should I use?

For extensive green roofs (including sedum) our 20mm deep drainage membrane Protecto-drain 20P is ideal and will suit nearly all applications. It is an egg box shaped membrane which will collect a certain amount of water with the excess draining through holes, running away in the air gap beneath the membrane into the roof drain.

For extensive green roofs where extra strength and water reservoir capacity is required we have 40mm or 60mm deep drain perforated membranes. The depth and water capacity of the drainage membrane specified will depend on the depth of the substrate and the types of plants / traffic on the actual roof garden / green roof.

For Blue Roofs special drainage cells are required.

What are sedum for green roofs?

Sedums are succulent plants often known as stonecrops. They grow typically in mountainous regions in rock faces and crevices and are incredibly hardy. They can



thrive in a shallow, free draining growing medium and can cope with cold, high wind and drought conditions, making them ideal for use in green roofs.

There are up to 500 different species of sedum, including annuals, herbs, small shrubs and perennials. They have a huge variety of different shapes, colours, sizes and growth cycles. The sedum blankets we supply will typically have 8 to 12 varieties of sedum.

There are many flowering species, and it is often forgotten that they produce stunning colour throughout the summer months, flowering predominately between May and July and attracting bees, butterflies and a huge variety of wildlife.

What are wildflowers for green roofs?

Is a wildflower a weed? Any plant that is in the wrong place can be called a weed. Any weed that is in the right place, such as on a biodiverse roof, can be called a wildflower. Wallbarn can supply Wildflower Blanket as an alternative to Sedum Blanket.

The wildflower species used on our wildflower blanket are all British native species and are chosen for their hardiness and suitability. We aim to introduce ambient colour and scents into the location to recreate the native wildflowers that could be found at ground level, thereby attracting bees and butterflies and a whole range of other native and local wildlife. It contains a blend of 41 native wildflowers specially selected to be pollinator friendly. Many of the species are perennial which means they will flower every year if the conditions are suitable. It is grown on a biodegradable coir blanket which means no grass species are required, resulting in a more colourful coverage.

It is important that very tall plants and those with a large amount of stalk and other growth that will die off at the end of the season are not chosen. Masses of dead and difficult to rot vegetation presents a fire hazard on the green roof space. Clients should be aware that wildflower green roof systems requires more maintenance than a sedum roof.

Can I walk on a rollout green roof?

Although sedum and wildflowers will tolerate a minimal amount of traffic it is generally not recommended to walk across the green roof repeatedly. Two to three per year maintenance visits and other ad hoc instances of walking across the sedum



and wildflowers will not present a problem to the integrity of the green roof but if regular traffic is envisaged then hard landscaping access areas should be constructed.

Do not consider using a green roof as a recreational space.

Can I install a rollout green roof in a shaded area?

Generally speaking, no. Sedum and wildflower roofs require consistent access to light and rainfall to grow properly. Semi shaded areas can be considered for sedum blanket but the roof space would require access to light for at least half of the time that space gets normal sunlight. Areas covered or overlooked by low hanging trees should or areas in constant shadow caused by tall buildings should not be considered.

Is irrigation necessary for a rollout green roof?

Yes. Once the sedum / biodiverse blanket is installed onto the substrate it is vital that the whole green roof is irrigated for the first few months, even in the winter. The roots of the sedum need to start to enter the substrate mix and establish themselves, a process that can take many months so the more help they can get via irrigation the better. There are many options when it comes to irrigation including doing it yourself from a hose or watering can, to simple drip irrigation or more sophisticated automated systems. Due to the broad options, Wallbarn do not supply irrigation equipment but we do partner with companies for large commercial projects. We are still happy to advise on irrigation, regardless of size.

Do green roofs carry a guarantee / warranty?

Green roofs are alive, and as with most agricultural and horticultural products, do not carry a guarantee or warranty due to the myriad of factors that can cause food and plants to rot, die or become unviable.

If clients wish to protect the green roof in the long-term they can purchase Maintenance Contracts with Wallbarn partners who will ensure the long-term sustainability of the green roof system.



Edging

The green roof should be surrounded on all sides by a wall or parapet / upstand for best results. When constructing green roofs up to walls of occupied buildings a fire break of stones is required. See the GRO Code for more details.

The upstand or wall will enclose the green space and prevent wind uplift and movement of the plants or substrate. If there are open sides to the green roof then an L shaped Aluminium Edging Trim can be supplied by Wallbarn which is anchored down by the weight of the green roof / pebbles to give a secure and tidy edge detail. This is available in various heights.

Accessories

As well as the Aluminium Edging Trim mentioned above, rounded pebbles are normally used around the perimeter of the green space and around objects (such as rooflights, mansafes, drains) to provide a tidy edge detail and to prevent the plants growing over such objects or hazards. It is important that these pebbles are rounded to prevent puncturing waterproofing membranes, and are river washed stones usually 20-40mm in size. Decorative specialist stones are sometimes used.

Access or Inspection chambers can be used to separate and protect objects such as roof drains (including Blue Roof Outlets), electrical points etc.

Hard landscaping is often required for foot traffic on access areas and paving slabs or decking is often constructed using support pedestals.

Do I need to fertilise the sedum?

Fertiliser is essential to maintain the condition of the plants, as little nutrient exists in the growing medium. Wallbarn supplies a slow release granular fertiliser which is safe to handle and easy to apply. Simply sprinkle onto the green roof and water in thoroughly. Fertiliser is best applied twice per year, during early Spring and late Autumn or Winter.

Nutrients in the fertiliser help the plants to become conditioned and resistant to temperature extremes, also helping the plants to flower. Without fertiliser, the strongest and most resistant species will become dominant and you will end up with a monoculture, losing the variety and aesthetic balance.



Maintenance for green roofs

Green roofs are living structures and as such need attention throughout their lifespan.

Some vegetation types such as sedum are planted as they require less maintenance than grass roofs for example. However, regular attention to substrate moisture and feed levels as well as the removal of weeds is essential to maintain optimum performance.

There is a thorough maintenance programme available from Wallbarn for all green roof types. Details can be [found here](#).

Extensive Green Roofs – Sedum or Sedum / wildflowers mix:

Early Spring schedule

- Remove weeds by hand pulling only
- Apply Vitax Q4 slow release granular fertiliser (available from Wallbarn) at a rate of 50 grammes per m²
- Clear debris from drainage outlets
- Generally, inspect vegetation area and monitor poor growth area
- Insert cuttings from good growth areas into bad growth area
- Check irrigation system (if applicable) and replace timer batteries

Late Autumn schedule

- Remove weeds by hand pulling only
- Clear debris from drainage outlets
- Generally inspect vegetation area and monitor poor growth areas
- Cut back dead stalks or dying vegetation
- Insert cuttings from good growth areas into bad growth areas
- Check irrigation system (if applicable) and drain down for winter to avoid frost damage



Wallbarn offers long-term Maintenance Contracts to ensure the green roof remains in the best possible condition and installation services are also available. [Click here](#) for more details.

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