

Green Roof Wildflower Turf®

Product Specification

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Product Code:

WFTRTBP

Manufacturer:

Wildflower Co.

Manufacturer Contact Details

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Technical Specification

Product code	WFTRTBP
Manufacturer	Wildflower Co.
Dimensions	1m x 1.2m slabs or 0.77m x 1.62m rolls, 15-35mm thickness (depending on age)
Weight	16-20 kg per m ²
No. of species	39. (36 wildflowers and 3 non-invasive grasses). Access full species list here.
Grass:flora sowing ratio	80% UK native wildflowers*, 20% grasses
Flowering period	April - October
Established height	70-150cm (Avg height 60cm if left uncut).
Time to establish	2-3 months (at least 1 year for plants that need vernalisation period)
Soil type	Suitable for all soil types
Seed provenance and testing	Grown in England using UK native species. Seed analysis results available on request.
Recyclability	Packaging 100% recyclable, product 100% biodegradable
BNG suitability	Suitable for Other Green Roof.
Root system	Intact/uncut**
Reinforcing material	Bio-based, biodegradable netting
Substrate features	Contains Hydropor™ for greater moisture retention
Seed mix	Calibrated using seed weight analysis

* Actual % may vary, based on environmental factors and seed availability. You may not see every species listed as the product is designed to adapt to individual settings, including a wide range of soil types and environmental conditions. Many species may not flower within the first year.

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Growing System

Wildflower Turf® is a soil-free, whole root turf system that is nursery grown to produce a mat of wildflower plants that retains 100% of its root system. A biodegradable, plant-based netting is included within the turf to support the root structure and enable the turf to retain its structural integrity.

[Click here for further information.](#)

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Species List

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All seed grown by Wildflower Co. is tested to stringent standards for germination and purity.

Seed analysis results are available on request.

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Species	Flowering Time	Ultimate Height	Colour	Life Cycle
Wildflower Species				
Autumn Hawkbit (<i>Scorzoneroides autumnalis</i>)	June - Oct	50	Yellow	P
Betony (<i>Betonica officinalis</i>)	June - Aug	60	Pink	P
Birdsfoot Trefoil (<i>Lotus corniculatus</i>)	May - Sept	30	Yellow	P
Black Medic (<i>Medicago lupulina</i>)	Apr - July	60	Yellow	P
Bladder Campion (<i>Silene vulgaris</i>)	May - Sept	100	White	P
Cats Ear (<i>Hypochaeris radicata</i>)	June - Sept	45	Yellow	P
Clustered Bellflower (<i>Campanula glomerata</i>)	June - Sept	45	Purple	P
Common Knapweed (<i>Centaurea nigra</i>)	June - Sept	100	Purple	P
Common Sorrel (<i>Rumex acetosa</i>)	June - Aug	80	Red	P
Common Thyme (<i>Thymus vulgaris</i>)	June - July	40	Light Blue	P
Common Toadflax (<i>Linaria vulgaris</i>)	June - Nov	75	Yellow	P
Cowslip (<i>Primula veris</i>)	Apr - June	25	Yellow	P
Field Scabious (<i>Knautia arvensis</i>)	July - Oct	150	Purple	P
Hedge Bedstraw (<i>Galium album</i>) (prev. <i>mollugo</i>)	June - Sept	100	White	P
Hoary Plantain (<i>Plantago media</i>)	May - Aug	30	White	P
Kidney Vetch (<i>Anthyllis vulneraria</i>)	June - Sept	25	Yellow	P
Lady's Bedstraw (<i>Galium verum</i>)	June - Sept	50	Yellow	P
Meadow Buttercup (<i>Ranunculus acris</i>)	May - Aug	90	Yellow	P
Meadow Cranesbill (<i>Geranium pratense</i>)	June - Sept	90	Purple	P
Musk Mallow (<i>Malva moschata</i>)	July - Aug	100	Pink	P
Oxeye Daisy (<i>Leucanthemum vulgare</i>)	May - July	90	White	P
Perforate St John's Wort (<i>Hypericum perforatum</i>)	June - Aug	150	Yellow	P
Ragged Robin (<i>Silene flos-cuculi</i>)	June - Aug	100	Pink	P
Red Campion (<i>Silene dioica</i>)	Apr - July	100	Pink	P
Ribwort Plantain (<i>Plantago lanceolata</i>)	Apr - Oct	90	White	P
Rough Hawkbit (<i>Leontodon hispidus</i>)	June - Sept	50	Yellow	P
Salad Burnet (<i>Sanguisorba minor</i>)	June - Aug	65	Red	P
Self Heal (<i>Prunella vulgaris</i>)	May - Sept	30	Purple	P
Small Scabious (<i>Scabiosa columbaria</i>)	June - Oct	70	Purple	P
Thrift (<i>Armeria maritima</i>)	May - July	25	Pink	P
Tufted Vetch (<i>Vicia cracca</i>)	June - Aug	120	Purple	P
White Campion (<i>Silene latifolia</i>)	May - Sept	100	White	SLP
White Stonecrop (<i>Sedum album</i>)	July - Aug	10	White	P
Wild Marjoram (<i>Origanum vulgare</i>)	June - Aug	100	Pink	P
Wild Red Clover (<i>Trifolium pratense</i>)	May - Sept	50	Pink	P
Yarrow (<i>Achillea millefolium</i>)	June - Aug	90	White	P
Grasses				
Crested Dog's-tail (<i>Cynosurus cristatus</i>)	June - Aug	75	Green	SLP
Quaking Grass (<i>Briza media</i>)	June - July	60	Brown	SLP
Sheep's Fescue (<i>Festuca ovina</i>)	May - June	30	Green	P

Preparation and installation

Management plan for long-term success

Step 1. Waterproof Membrane

- Lay a waterproof membrane over the entire roof area. Consult a roofing contractor for an appropriate system.
- Pay attention to sealing around roof lights, vent stacks and other similar features where there is a higher risk of water ingress. The whole roof must be watertight and care taken not to puncture the membrane.
- We highly recommend obtaining an independent leak test, with a certificate issued. If you're retrofitting a green roof onto an existing one, you'll want to see a recently issued certificate. This will provide evidence that the roof was watertight before your work began.

Step 2. Substrate Retention

- When using loose substrate, and in particular on steeply pitched roofs, provision must be made for a retaining system at the eaves and sides of the roof.
- This can be in the form of a wooden batten/barge board with accompanying fixing brackets or an engineered metal L shaped strip attached to the roof structure. Your architect or roofing contractor should advise you on the design and construction of this feature. Attention should be made to the water-tightness of fixing points.
- In addition to eaves retention it is advisable to install a line of our woven substrate sacks around the perimeter of the roof which provides the initial containment of the loose substrate whilst the turf establishes a root system.

Step 3. Drainage

- Adequate provision must be made for drainage at the bottom of the roof slopes. This can be achieved by leaving a small gap in the retention feature, or a strip backfilled with gravel or similar material.
- You will also need a drainage board, for flat roofs this can be a corrugated HDPE layer, or a ribbed fleece. For pitched roofs, only a ribbed fleece would be appropriate.
- When using drip irrigation, a drainage board is highly recommended. These boards feature small reservoirs that hold water, allowing it to wick up slowly into the substrate. Without a drainage board, water from drip irrigation tends to drain away too quickly, leading to ineffective watering of the roof.
- As an alternative, you could consider pop-up sprinklers (suitable for any roof) or flood irrigation (suitable for flat roofs only). These options need to be integrated into the initial roof design but offer a very efficient way of irrigating where appropriate. Get in touch for more information on these systems.

Step 4. Substrate Layer Options

Wildflower Co.'s Research & Development team have developed a unique substrate, purpose built to be used with our Wildflower Roof Turf. It is GRO compliant, meeting the GRO code. Our substrate is an inert, sterile composted green waste based medium. It contains a pH modifier, a wetting agent, and is free draining with low levels of organic nutrients. The substrate is light, friable and easy to use for both manual and mechanical installations. It can be provided in degradable or non-degradable sacks or loose in 1m³ bulk bags.

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Preparation and installation

Management plan for long-term success

Step 4. Substrate Layer Options (Continued)

Option A. Loose Substrate only

- Fill the area with substrate laid evenly at a depth of 110-120mm to allow for settlement.
- Lay a strip of geo-textile permeable membrane along the inside of the barge board to allow water to drain without washing out any substrate/soil in the process.

Option B. Loose Substrate & Substrate Sacks

- Using our degradable hessian substrate sacks, lay two lines of sacks around the perimeter of the roof and along the ridge. Backfill the remainder of the area with loose substrate to the same level as the sacks.
- We recommend allowing 5x sacks per m².
- Use some of the loose substrate to fill in the small spaces between the substrate sacks.

Option C. Substrate Sacks only

(+ a thin layer of loose substrate screeded over the top)

- Using our non-degradable substrate sacks cover the whole roof area, allowing 4x sacks per m². Using non-degradable sacks helps to give permanent structural strength, particularly useful for pitched roofs.
- Using loose substrate, apply a screed layer of substrate over the substrate sacks and brush in to ensure any gaps are properly filled.

Step 5. Irrigation

(Optional but recommended)

Lay drip irrigation system, if required (recommended). Pipes should be laid across the gradient of the roof slope with T joints to a vertical supply/feeder pipe.

Step 6. Laying Turf

Lay the turf paying attention to abutting turf joints and ensuring turf roots are in contact with the substrate. Any gaps should be filled with loose substrate.

Step 7. Watering

- Water turf daily (if it does not rain) until the roots have established. Allow for a minimum of two weeks.
- Do not flood the turf when watering but ensure that the substrate is damp.
- Once established, revert to occasional watering as per the maintenance sheet.

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Maintenance

Management plan for long-term success

Wildflower turf should be well established within a few weeks and once established requires little maintenance other than an essential annual maintenance cut. The cut is an important part of the meadow's life cycle and ensures re-growth and species diversity year-on-year. The annual maintenance cut should be done in late September, early October. There is no need for a set date, but this timing will allow the plants in the meadow to regenerate before the first frost typically in November.

You can choose to cut only half of the meadow area at one time to allow time for fauna to migrate to the uncut meadow. Allow some regrowth of the cut area before cutting the second half, but aim to have finished all cutting by the end of the first week of October. Over time alternate the areas that are cut early and the area that are left, as this will benefit species diversity.

It is important to cut the meadow down to 2-3 inches off the ground and remove all cuttings. This can be done by strimming and raking, or using a mower and collecting the cuttings. Cuttings should not be left on the meadow, as they add undesirable fertility to the ground. It is also important to remove all leaf litter that falls onto the area.

Watering

Once laid, water the turf thoroughly for the first week depending on the weather. If the soil is not soaked before laying it is crucial to ensure this initial watering penetrates

through to the soil beneath the turf. During this watering check by lifting a corner of the turf to ensure that the soil is damp. You can check this by carefully lifting a corner of the turf to confirm the soil is damp.

Don't let the turf dry out during its establishment period, which typically lasts between 2-3 weeks. For the first growing season, it's important to occasionally water the turf during extended dry spells. Once well established, your wildflower green roof should be resilient in most conditions but the wildflowers will benefit from watering during very dry periods.

A healthy wildflower green roof creates a species-rich habitat that significantly contributes to biodiversity. This habitat will thrive with sufficient moisture. If the plants are allowed to dry out, they will enter a state similar to drought, which is a natural part of their life cycle.

Managing your meadow for BNG (if applicable)

Ensure the sward height is varied throughout the year to provide microclimates for wildlife. Cover of bare ground should be kept between 1-5% and physical damage must account for less than 5% of the total area. Cover of species of sub-optimal condition (including thistles, dock, nettles, creeping buttercup, greater plantain, white clover and cow parsley) and scrub should be kept below 5%, and bracken cover should be kept below 20%. Weeds such as these can be managed through physical or chemical removal, being careful not to damage the surrounding plants.

Managing fertility in the ground

On fertile sites or where you might have species dominance or too vigorous early growth, a second cut at the end of May, beginning of June, can be introduced. This high cut, approx. 8-10 inches off the ground, to remove the flower heads but leaving enough plant stems and leaf area to regenerate, and removal of all cuttings, will help to knock back some species dominance, reduce soil fertility and open up the sward to more light and air circulation to promote the diversity of lower growing species. Once the cutting has been completed and all cuttings removed, give the area a good soaking with water to encourage the next flush of growth. Introducing this early summer cut and removal will mean your second autumn cut and removal will be later that year, up to the end of October.

Fertiliser

Generally, your green roof won't need fertiliser. However, in some situations, such as five years after installation or if the substrate is low in nutrients, a light dose of fertiliser in the spring can significantly boost plant health and growth. This is rare, so please contact us if you're in doubt.

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