



## PRODUCT DETAILS

Product name **Pro-Living® Plug Plants - Wildflower**

Product type Green roof component

## PRODUCT DESCRIPTION

**Pro-Living® Plug Plants - Wildflower** are a selection of wildflower starter plants that, once established, will give a meadow that flowers throughout the summer.

The species are specially chosen to thrive in dry soil or on a green roof all year round, these bee-friendly species such as vipers bugloss and rough hawkbit will provide a biodiverse haven for pollinators and other wildlife.

You will receive 10 species from a longer list of suitable UK wildflower plants, subject to availability.

## APPLICATION

**Pro-Living® Plug Plants - Wildflower** are suitable for planting into Proteus Bio-Diverse engineered substrates of **Pro-Living®** green roof schemes. (note, subject to availability of specific plugs at time of order).

## INSTALLATION

- Create or construct a suitable growing bed that is free of weeds, has reasonable texture and structure and can retain moisture
- A depth of **75 -150mm** or more is best for supporting the widest range of plant species
- Shallow depths (less than **75mm**) are not adequate and growing mediums other than Proteus Bio-Diverse Substrate may not contain correct moisture or nutrients
- Plugs are best planted between late August and May but can be planted all year round providing the ground is not frozen or waterlogged
- Irrigation may be needed to maintain establishment through dry periods
- Thoroughly water after installation
- A minimum of **5** plugs per **m<sup>2</sup>** in groups of at least 3 plants per species depending on project requirements
- With the Wildflower mixtures it is important to remember that they thrive best when on low nutrient substrates

## TECHNICAL INFORMATION

Species Available		
Yarrow	Birds-Foot Trefoil	Agrimonia Eupatoria
Common Agrimony	Musk Mallow	Anthyllis Vulneraria
Kidney Vetch	Ribwort Plantain	Centaurea Nigra
Common Knapweed	Hoary Plantain	Centaurea Scabiosa
Greater Knapweed	Cowslip	Daucus Carota
Wild carrot	Self-Heal	Echium Vulgare

Species Available		
Viper's Bugloss	Meadow Buttercup	Galium Verum
Lady's Bedstraw	Weld	Knautia Arvensis
Field Scabious	Yellow Rattle	Leontodon Hispidus
Rough Hawkbit	Bladder Champion	Leucanthemum Vulgare
Oxeye Daisy	Dark Mullein	Linaria Vulgaris
Common Toadflax	Achillea Millefolium	Lotus Corniculatus
Malva Moschata	Plantago Lanceolata	Plantago Media
Primula Veris	Prunella Vulgaris	Ranunculus Acris
Reseda Luteola	Rhinanthus Minor	Silene Vulgaris
Verbascum Nigrum		

## SIZE, FINISH AND COLOUR

Product Code	Planting rate per m <sup>2</sup>	Height cm	Flowering period	Setting
GRPPWILD	5 to 7 plugs	10 - 100	May - September	Full sun, well-drained, light soils

## SHELF LIFE AND HANDLING

**Pro-Living® Plug Plants - Wildflower** should be planted on within a few days of delivery.

## PACKAGING

Supplied in 40cc (40 cm<sup>3</sup>) cell trays.

## LIMITATIONS OF USE

For professional use only.

## DISPOSAL

Disposal of **Pro-Living® Plug Plants Wildflower** should be done in a manner that is compliant with UK regulations and best practices. This includes ensuring that the material is properly classified and described, that it is not mixed with hazardous waste, and that it is disposed of in a manner that is environmentally responsible.

## GUARANTEES

Defects arising from lack of maintenance or abnormal use may fall outside of the cover of the Proteus Waterproofing guarantee.

## MAINTENANCE

All green roofs will require maintenance; it is important that access is considered at the design stage. Maintenance should be conducted by qualified personnel This will help ensure the initial establishment and continued health of the green roof system. It is strongly recommended that the installing contractor remains

responsible for the maintenance of the green roof during this establishment stage (between 12 - 15 months) and prior to the assignation of maintenance duties to the building owner's representative.

Maintenance contractors, with specialist training in green roof care from organisations such as [Green Roof Organisation](#), should be used where possible. When designing a green roof, it is important that the green roof system is specified accounting for any budgetary constraints. The costs of roof maintenance should therefore form part of the life cycle cost analysis for the building, allowing the most appropriate green roof specification to be realised.

### General maintenance actions

All maintenance actions carried out at roof level must be in full compliance with the appropriate health and safety regulations, and particularly those specifically dealing with working at height.

BS 4428 Code of practice for general landscape operations (excluding hard surfaces) and BS 7370-4 Grounds maintenance - Recommendations for maintenance of soft landscape (other than amenity turf) provide guidelines for maintenance actions.

### Irrigation and watering

Irrigation is typically required for the initial establishment of the green roof for a period of 6 - 8 weeks depending on natural rainfall during this time. However, once vegetation cover is achieved, irrigation can be reduced. All green roofs will need watering in periods of extended drought, i.e. more than 6 weeks without any rain. Care should be taken not to overwater green roofs, as this may harm the plants or overload the roof.

### Fertilising

[Green Roof Organisation](#) does not recommend regular or high use of fertiliser on the low-nutrient growing mediums used on green roofs as they can encourage invasive weeds and grasses and may leach into the watercourse. Each green roof should be assessed prior to any addition of fertiliser.

Note: Fertiliser should be slow and long release, and only be applied if downpipes are isolated from mains sewage system. Intensive and simple intensive roofs are based on a more fertile growing medium and the planting installed will require regular fertilisation.

### General Vegetation Maintenance

- Always remove species with large growth habits or aggressive root systems
- Any wind-blown seeds or cuttings should be removed before they have the opportunity to take root
- Many grass species can be invasive and should be removed from extensive green roofs, unless designed into the planting scheme
- The ecological and aesthetic requirements of the site should guide the management of dominant species and habitat over time
- Cut back taller flowering species to approx. 150mm above substrate surface in autumn/winter after seeding
- Excess dead plant matter should be removed to avoid encouraging fungal disease. However, for maximum wildlife support, care should be taken not to remove all vegetation straight after flowering as many insects over-winter in hollow plant stems. For this reason, rotational cutting (where not all vegetation is cut simultaneously) and removal is advised

### Clearance / Removal

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Generally, the removal of dead material is desirable as it allows plants the space to develop a greater coverage, improving the finished appearance of the roof, whilst also reducing the risk of fungal disease forming and spreading. However, in some biodiverse applications, removing plant debris could be counter-productive in creating habitat.

**Biodiverse roof: 80mm - 150mm very-low to low nutrition substrate**

- **Irrigation:** Typically, not required
- **Fertilisation:** Generally not required, particularly where indigenous species are being encouraged to replicate native habitats. Whilst a low vegetative density is common, zero vegetation is generally undesirable
- **Plant management:** A maintenance programme should be drawn up to follow the intended biodiversity objectives
- **General:** Drainage outlets (with inspection chambers) and gravel/shingle perimeters should be inspected twice yearly and cleared of any living or dead vegetation.

Maintenance should take account of the intended wildlife support, in addition to standard green roof maintenance procedures. Care should be taken not to remove all vegetation after flowering as many insects over-winter in hollow plant stems. [Green Roof Organisation](#) guidance should be followed, unless stated otherwise

## GUIDELINES AND STANDARDS

It is the responsibility of the Contractor to thoroughly familiarise themselves with all relevant Codes of Practice and Building Regulations to the works or referred in the specification.

Proteus Waterproofing take no responsibility for misinterpretation or lack of knowledge for third parties.

The works shall be carried out in accordance with the requirements of:

- **BS 6229** Flat roofs with continuously supported flexible waterproof coverings - Code of practice
- **BS 8217** Reinforced bitumen membranes for roofing - Code of practice
- **BS 8000-0** Workmanship on construction sites - Introduction and general principles
- **BS 8000-4** Workmanship on building sites - Code of practice for waterproofing
- **LRWA** [Design Guide for Specifiers](#)
- **S2T** [Safe to Torch](#)
- **GRO** [Code of Best Practice](#)