

## DATA SHEET

# SKY GARDEN RAIN GARDEN SOIL MIX RGSM01

Version 1.0

### SKY GARDEN RAIN GARDEN SOIL MIX

The Rain Garden Soil Mix is a specially engineered blend designed for use in bioretention areas, rain gardens, and sustainable drainage systems (SuDS). This mix supports both effective stormwater management and healthy plant growth by providing excellent infiltration rates, pollutant filtration, and moisture regulation.

Ideal for landscape architects and civil engineers designing for resilience and sustainability, this soil mix plays a vital role in mitigating urban runoff and enhancing biodiversity.



## SYSTEM CONSIDERATIONS

- Designed to absorb and filter stormwater quickly, reducing surface runoff and flood risk.
- Filters pollutants, sediments, and nutrients from stormwater before it reaches the water table or sewer system.
- Maintains a balanced structure and nutrient profile to support robust vegetation in variable moisture conditions.
- Engineered to stay stable under saturated conditions, preventing soil washout and collapse.
- Manufactured to meet SuDS specifications and environmental guidelines using responsibly sourced materials.

## PHYSICAL PROPERTIES

Bulk Density When Oven Dried	1.20 – 1.35 g/cm <sup>3</sup> Reflects dry installation weight
Bulk Density at Field Capacity	1.35 – 1.50 g/cm <sup>3</sup> With retained moisture post-drainage
Field Capacity (% v/v)	30 – 35% Ideal for supporting plants between rainfall events
Total Porosity (%)	45 – 55% High pore space supports drainage and air exchange
Porosity at Field Capacity (%)	10 – 15% Ensures oxygen availability in saturated periods

## TECHNICAL PROPERTIES

Organic matter (% weight)	3 – 5% Controlled to avoid excessive nutrient leaching
pH	6.5 – 7.5 Neutral to slightly alkaline
Electrical Conductivity (mS cm <sup>-1</sup> )	<1.0 mS/cm Low salinity – safe for stormwater applications
Phosphate (mg l <sup>-1</sup> )	<20 mg/L Moderate – prevents eutrophication of runoff
Potassium (mg l <sup>-1</sup> )	100 – 200 mg/L Supports resilient root systems
Total nitrogen (%)	0.5 – 0.8% Balanced for bioretention planting

## SPECIFICATION DESCRIPTION

A rain garden is a shallow, landscaped depression designed to manage and treat stormwater runoff from hard surfaces such as roofs, roads, and pavements. The system captures, temporarily stores, and filters rainwater through a specially engineered soil mix and vegetation before it infiltrates into the ground or slowly drains away.

*n.b. these substrate blends are currently undergoing independent laboratory analysis by STRI (Sports Turf Research Institute) to validate physical, chemical, and biological performance. Full test reports will be made available upon completion and can be provided to clients on request.*



T 01242 620905

E [enquiries@sky-garden.co.uk](mailto:enquiries@sky-garden.co.uk)

### Head Office

Unit 3, Miller Court  
Tewkesbury, Gloucestershire,  
GL20 8DN

01242 620905

### London Office

Kemp House,  
152 City Road,  
London. EC1V 2NX

02035 030927



