

# Boughton Intensive Green Roof Substrate 1



## Product information

Boughton Intensive green roof substrate 1 has been designed to contain a greater proportion of organic matter and finer sand particles. This allows the substrate to retain more moisture for longer periods of time, as well providing extra nutrition for plants.

## Application

Designed for intensive green roof installations, this substrate provides a stable growing medium for a wide variety of plants, including green roof lawns, shrubs and trees.

## Standard

Boughton Intensive Green Roof Substrate 1 meets and exceeds all present G.R.O guidelines.



## Properties

Bulk density oven dried (g cm-3)	1.07
Bulk density at 10% VMC (g cm-3)	1.33
Bulk density at field capacity (g cm-3)	1.64
Field Capacity (% v/v)	53.9
Particle Density (g cm-3)	2.18
Total Porosity (%)	48.9
Porosity at Field Capacity (%)	57.5
Effective Porosity (%)	0.0
Saturated Hydraulic Conductivity (mm min-1)	18

## Installation details

Boughton Intensive Green Roof Substrate 1 can be laid to depths varying from 100 / 500 cm. The depth of substrate is determined by the planting scheme and the weight loading capability of the roof which must be assessed by a qualified structural engineer.

## Delivery info

Boughton Intensive Green Roof Substrate 1 can be delivered in any required format. This includes 25ltr and IBC Bulk bags. Or loose tipped as required.



## Boughton Intensive 1 Mix engineering characteristics compared to FLL standards for Extensive greening

### Substrate Density

Bulk Density when oven dried ( $\text{g cm}^{-3}$ )	1.07
Bulk Density at 10% VMC ( $\text{g cm}^{-3}$ )	1.33
Bulk Density at field capacity ( $\text{g cm}^{-3}$ )	1.64
Particle Density ( $\text{g cm}^{-3}$ )	2.18

### Water & Air

Field Capacity (% v/v)	53.9
Total Porosity (%)	48.9
Porosity at Field Capacity (%)	57.5
Effective Porosity (%)	0.0
Saturated Hydraulic Conductivity ( $\text{mm min}^{-1}$ )	18

### Chemical

Organic Matter (%)	3.7
pH	8.0
EC ( $\text{mS cm}^{-1}$ )	3.1

### Plant Available Nutrients

Nitrogen ( $\text{mg l}^{-1}$ )	7.8
Phosphate ( $\text{mg l}^{-1}$ )	>165
Potassium ( $\text{mg l}^{-1}$ )	>241

### Particle Size Distribution

Stones (>8 mm)	10.4
Coarse gravel (8-4 mm)	5.0
Fine gravel (4-2 mm)	0.6
Very coarse sand (2-1 mm)	7.2
Coarse sand (1.0-0.5 mm)	20.1
Medium sand (0.5-0.25 mm)	39.5
Fine sand (0.250-0.125 mm)	15.5
Very fine sand (0.125-0.050 mm)	1.2
Silt (0.050-0.002 mm)	0.5
Clay (<0.002 mm)	0.1

### Boughton Loam Ltd