# RootCell

## Soil Structure System

Includes:
- Product information sheets
- Technical data sheet

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**GreenBlue**
URBAN

# RootCell

## SOIL STRUCTURE SYSTEM

The **RootCell** system has been developed following consultation with landscape architects, local authorities and leading tree experts. The concept is simple – topsoil is the most favourable, natural rooting medium. **RootCells** provide the load bearing structure preventing the soil from becoming compacted and lifeless. Furthermore, the long term root zone can be maintained by incorporating **RootRain** irrigation/aeration in the design.

**Load bearing Geonet** is laid over the top of the **RootCell** structure to prevent the ingress of the surface sub-base into the rooting area.
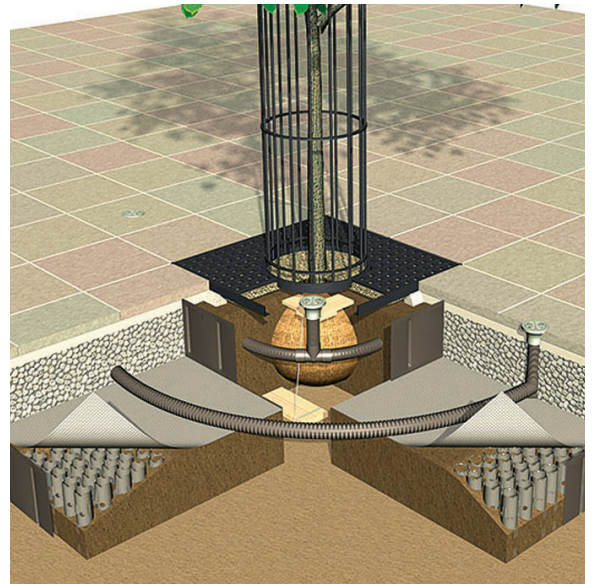
**BENEFITS**

- Load bearing – RootCells have been independently tested to sustain loads of up to 80 tonnes per square metre evenly distributed.
- When loaded with topsoil, RootCells are 92% soil by volume.
- Easily installed in modular form
- Maximises rooting area for the tree.
- Constructed from 100% recycled material.
- Long term root zone management is possible when installed in conjunction with RootRain & Root Director products as shown
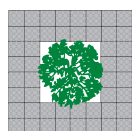- Promotes a multiple rooting pattern more suited to urban locations.
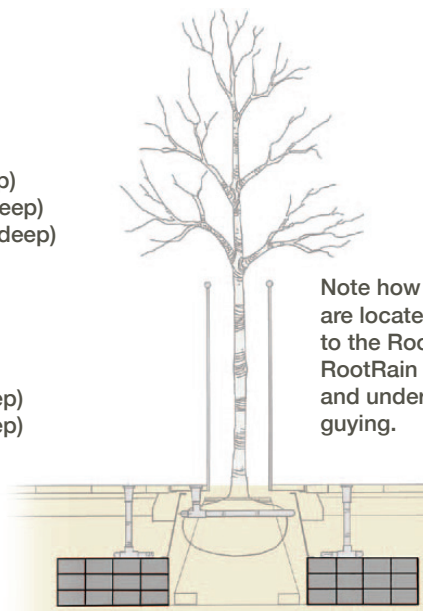
# RootCell

## SOIL STRUCTURE SYSTEM

**Typical RootCell layouts in plan view**
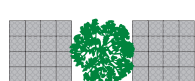
64 (2 deep)
or 96 (3 deep)
or 128 (4 deep)

96 (2 deep)
or 144 (3 deep)
or 192 (4 deep)

Note how RootCells are located in relation to the Root Director, RootRain Precinct and underground guying.

## RootCell Module specification

| Description | Recycled plastic rigid skeletal interlocking ring structure |
|---|---|
| Material | Recycled HDPE |
| Dimensions | 250mm x 250mm x 90mm |

| Code | Description |
|---|---|
| GLRCMA | RootCell Module |
| GLTWGNA | Load bearing Geonet membrane |

## Typical Installation Specification

Install GreenBlue Urban root management system comprising RootCells, Root Director and RootRain Precinct Double Inlet system.RootCells should be installed on a firm, level, free draining base. The contractor should allow for installing a land drain in areas prone to waterlogging.

RootCells should be loaded in situ with a good quality, free draining topsoil. A sandy loam with a neutral pH is recommended. RootCells can be loaded with topsoil four layers at a time. The soil mixture must be dry for this operation.

Where exceptionally heavy loading is anticipated, e.g. occasional HGV overrun, it is advisable not to lay modules more than four deep. The load capacity begins to decrease with depth. If in doubt, consult our technical department.

Specify the number of modules to be used per tree pit. Quantity will depend on space available and budget – contact our sales office for costings.

Once the cell structure has been sufficiently filled with soil, lay load bearing Geonet over the top, black webbing side downwards, lapping joints and sides of Root Barrier, or Root Director if used, by 150mm.
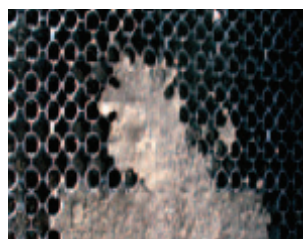
## Compatible products

• Root management
• Underground root ball guying
• Tree grilles and guards
• Porous resin bound gravel

Important - Please read these instructions fully before starting assembly
For further help telephone our technical helpline on 01424 433233

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# RootCell
## Soil Structure system

**TYPE**

Structural soil support module

**CODE**

GLRCMA 250mm x 250mm x 90mm

**MATERIAL**

Recycled HDPE

**LOAD BEARING CAPACITY**

up to 80 tonnes per m²

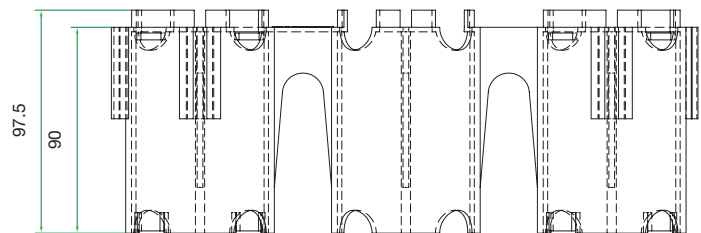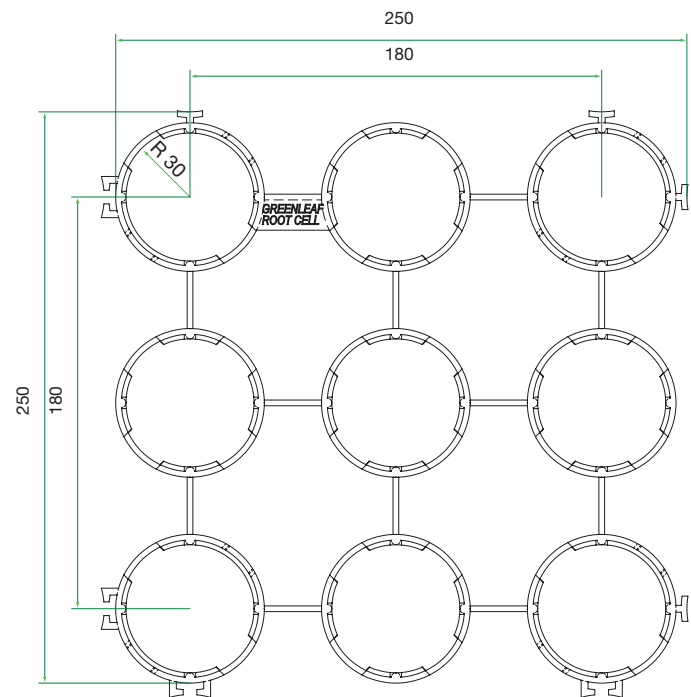**FINISH**

Natural

**COLOUR**

Black

**WEIGHT**

0.38kg

**VOID/SOIL**

92%

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# Load Bearing Geonet
## DATASHEET



**Raw Material**

| Grid | PET |
| Nonwoven | 150 g/m² PP |
| Coating | Polymer |

**Weight**

| EN ISO 9864 | ~420 | g/m² |

**Ultimate tensile strength**

EN ISO 10.319
| Longitudinal | ≥ 40 | kN/m |
| Transversal | ≥ 40 | kN/m |

**Strain at nominal tensile strength**

EN ISO 10.319
| Longitudinal | ≥ 12.5 | % |
| Transversal | ≥ 12.5 | % |

**Mesh size of the geogrid**

| | 25 x 25 | mm |

**Opening size**

| EN ISO 12956 | ~0,10 | mm |

**Opening size**

| EN ISO 11058 | ~75 | x 10-3 m/s |

**Standard Dimension**

| Width x Length | 1m | 100m |

No responsibility is accepted for any change in product properties due to environmental influences and / or improper application or handling. Rights are reserved to modify the product to effect improvements.

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