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# GREEN ROOFS DIRECT Q37 Specification



## Please note...

This specification is based on current information available at the time of writing, if any aspects are revised prior to construction, or you require any additional details. Please contact our Technical Services Dept who would be pleased to amend or update the information provided.

The pitch of the roof is unconfirmed at time of writing.



## Q37 Green Roofs

To be read with Preliminaries/ General Conditions.

## GENERAL

#### 110 GREEN ROOF

- Roof type: As per J31
  Substrate: As per J31.
  Slope: As per J31.
- Waterproofing: As Per J31
- Thermal insulation: As per J31
- Protection: As per J31
- Moisture control layers: Green Roofs Direct Drainage /Retention Board
- Growing medium: Green Roofs Direct Roof Specific Substrate. Depth: 50mm.
- Vegetation: Green Roofs Direct Sedum Mat

## PERFORMANCE

#### 210 GENERAL DESIGN

- Green roof and associated features: Complete the detailed design.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

#### 255 MAXIMUM PERMITTED GREEN ROOF LOADS

- Dead loads:
- Green roof layers: 1.5Kn/m<sup>2</sup>
- Imposed loads:
- Activity: 1.5Kn/m<sup>2</sup>
- Vegetation: Sedum Varieties to include



Sedum Acre Aureum, Sedum Album Coral Carpet, Sedum Album mini, Sedum Album Athoum, Sedum Hispanicum, Sedum Summer Glory, Sedum Reflexum, Sedum Weihenstephaner Gold, Sedum Voodoo

- Allowance for additional loads during construction: None.
- Service loads: Submit Proposals
- Requirement: Restrict site activities to ensure that design loads are not exceeded, or submit proposals for temporary supports.

## PRODUCTS

#### 350 ROOT EXPANSION, DRAINAGE LAYER WITH FILTER FLEECE ATTACHED

- Manufacturer: Green Roofs Direct, 146 Shore Road, Magheramorne, Larne, Co. Antrim, BT40 3HY
- Material: Composite drainage board consisting of a recycled composite foam with high Impact Polystyrene with a non-woven filter fabric bonded to the base.

Depth: 30mm

Infill: Not Required

#### 370 EXTENSIVE GROWING MEDIUM

- Manufacturer: Green Roofs Direct, 146 Shore Road, Magheramorne, Larne, BT40 3HY. Tel; 02893 378777
- Material:

Total pore volume	> 60-70 Vol %
Max water capacity	$\geq$ 35% Vol
Key data	
Dry weight approx.	≤ .75 g/cm3
Water saturated	≤ 1.4g/cm3
Organic content	≥65 g/L
pH value	5.8-7.9
Water permeability	$\geq$ 0.6 mm/min
Compression factor	1,2

- Depth: 50mm
- Ameliorant/ conditioner: Not Required
- Fertilizer: Green Roofs Ireland 12-14 month slow release fertiliser



#### 400 VEGETATION BLANKET

Manufacturer: Green Roofs Direct, 146 Shore Road, Magheramorne, Larne, PLEASE SEE DATA SHEET FOR SPECIFICATION

#### 420 EDGE RETAINING PROFILE

- Manufacturer: Green Roofs Direct, 146 Shore Road, Magheramorne, Larne, Co Antrim BT40 3HY
- Material: Galvanised metal
- Dimensions: 3m x 80mm x 100mm

#### 440 VEGETATION BARRIER TO GREEN ROOFS

- Material: 20-40 mm washed pebbles .
- Depth: To match soft landscape depth. .
- Width: Minimum 300mm.

#### 450 ROOF DRAINAGE OUTLETS TO GREEN ROOFS

- Manufacturer: Wade International or similar approved
- Product reference: 3100 Series (Deep Sump) Ref: WB414.
- Material: Cast Iron.
- Size: 405mm diam.
- Fixing: Strictly in accordance with Manufacturer's Instructions.

#### 460 IRRIGATION SYSTEM - IF SPECIFIED BY CLIENT

- Supplier: Rain Vault Systems.
- Type: Project specific system designed and installed by irrigation supplier in accordance with Services Consultant's specification and requirements in.
- Features: Irrigation to be provided manually by covered water tap located in each terrace.



## **EXECUTION**

#### 710 INSTALLATION GENERALLY

- Preparation: Clear all surfaces of debris.
- Timing: After certification of waterproof membrane integrity.
- Surface condition: Visually inspect waterproof membrane, report any damage.
- Faults in waterproof membrane: Report.
- Contamination: Do not use materials detrimental to healthy plant growth.
- Storage: Do not overload.
- Point loads: Avoid.
- Outlets: Do not block.
- Outlet grilles: Installed.

#### 720 ADVERSE WEATHER

- Unfinished work: Secure from damage and wind uplift.
- Conditions: Do not install or work with frozen materials.

#### 730 INSTALLATION OF INVERTED ROOF INSULATION

- Preparation: Clear roof of other trades.
- Condition of substrate: Clean.
- Fitting: Loose lay.
- Joints: Butt together.
- End joints: Stagger.
- Cutting: Minimize.
- Perimeters and up stands: Fit full sized pieces.
- Penetrations: Cut cleanly and fit closely.
- Stability: Springing and rocking not permitted.
- Protection: Cover to prevent wind uplift.

#### 740 ROOT BARRIER INSTALLATION

- Joints: Minimize.
- Overlaps (minimum): 75mm
- Up stands: Extend to top of growing medium.



#### 770 DRAINAGE LAYER INSTALLATION

- Extent: Continuous over entire roof area.
- Fitting: Loose laid directly onto the XPS Insulation.

#### 780 FILTER MEMBRANE INSTALLATION

- Joints: Minimise.
- Overlaps: 100 mm.
- Fitting: Loose laid to perimeter and where drainage layer has been cut in accordance with manufacturer recommendations.
- Up stands: Extend to top of growing medium.

#### 790 GROWING MEDIUM INSTALLATION

- Handling: Minimize.
- Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
- Layers:
- Depth 50mm
- Sequence: Gently firm each layer before spreading the next.

#### **800 VEGETATION BLANKET INSTALLATION**

Handling Blankets

- Timing: Lay within 36 hours of lifting from growing position.
- Excessive stacking: Not permitted
- Material loss (maximum): 3% of total surface area.
- Growing medium condition: Thoroughly watered
- Laying blankets: Dry, damaged, frosty or waterlogged blankets: Do not lay
- Orientation: Diagonal or perpendicular to slope of roof.
- Joints: Stagger. Butt together or slightly overlap to prevent gaps. Do not stretch blankets.
- Edges: Finish with whole blankets.
- Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.
- Dressing: Application: Brush in to fill joints.
- Watering: Thorough, immediately after laying and dressing.



#### 820 EDGE RETAINING PROFILE INSTALLATION

- Cutting: Neat, accurate and without spalling.
- Junctions: vertical, secured using proprietary connectors.
- Position: True to line and level. Smooth continuous lines.
- Fixing: Perforated 1.5mm thick steel angles bolted together and inserted below the Drainage Board layer. The opposite side of the angle to be supported by a 20/40mm pebble vegetation barrier of approximately the same depth as the landscape construction.

#### 830 INSPECTION CHAMBER INSTALLATION

- Location: Install centrally over drain outlet.
- Orientation: Align parallel with adjacent features.
- Bedding: Not required.
- Backfill: 20/40mm washed pebbles.
- Surround: Minimum 300mm.

### **COMPLETION**

#### 910 INSPECTION

- Timing: Before handover.
- Give notice (minimum): 3 days.

#### 920 COMPLETION

- General: Leave the works in a clean, tidy condition.
- Surfaces: Clean immediately before handover.
- Outlets: Clean and clear of obstructions.
- Completed green roof: Protect from adjacent or high level working.

#### 930 DOCUMENTATION

- Timing: Submit at handover.
- Contents:
- Growing medium declaration of analysis.
- Manufacturers' guarantees and warranties.
- Procedures for maintenance of the green roof.
- Record drawings showing the location of planting and associated features.
- Number of copies: 2

