

Q37 Green roofs

To be read with Preliminaries/General conditions

GENERAL BIODIVERSE BROWN GREEN ROOF SYSTEM

130 BIODIVERSE BROWN ROOF COVERING

To be read with Section J 41 ALPAFLORE warm or J31 WILOTEKT-PLUS inverted roof specifications for Green Roofs.

- Roof type and thermal insulation as J 41 or J31 as required.
- Moisture control layers: BAC CANALIS plus Axter filter layer
- Growing medium: Axter Brown Roof Substrate, recycled site waste or as directed by landscape consultant.
 - Depth: As required.
- Vegetation: As required.
- Accessories: Axter edge retaining profile.
20 to 40 rounded washed river gravel to all perimeters and major protrusions
Axter rainwater outlet inspection covers.
Irrigation system (supplied and installed by others) in accordance with requirements.

140 PAVING AND DECKING SYSTEMS

- Type: As drawing _____.
- Paving support: Axter paving slab supports.

PERFORMANCE

210 GENERAL DESIGN

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

255 MAXIMUM PERMITTED GREEN ROOF LOADS:

- Dead loads:
 - Green roof layers: _____
- Imposed loads:
 - Activity: _____
 - Vegetation: _____
 - Allowance for additional loads during construction: _____
- Service loads: _____
Requirement: Restrict site activities to ensure that design loads are not exceeded, or submit proposals for temporary supports.

PRODUCTS

340A MOISTURE CONTROL LAYER To extensive green roof areas.

- Manufacturer: Axter Ltd.
 - Product reference: BAC CANALIS.
- Material: Recycled HDPE.
 - Capacity: 20 litres/m².

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- 360 FILTER MEMBRANE Required on BAC CANALIS
- Manufacturer: Axter Ltd.
 - Product reference: Axter Filter layer.
 - Material: Polyester.
 - Mass: 200 gm/m².
- 390 BIODIVERSE GROWING MEDIUM To green roof areas
- Manufacturer: Axter Ltd.
 - Product reference: Axter brown roof substrate.
 - Material: As manufactured.
 - Ameliorant/ conditioner: As manufactured.
 - Coverage: as required.
 - Declaration of analysis: Submit.
 - Parameters: pH value.
- 400A VEGETATION BLANKET To green roof areas if required
- Manufacturer: Axter Ltd.
 - Product reference: Sedum blanket.
 - Planting mix: As required.
 - Thickness: As manufactured.
 - Vegetation coverage (minimum):80%.
- or
- Manufacturer: Axter Ltd.
 - Product reference: Wildflower blanket.
 - Planting mix: As manufactured.
- or
- Manufacturer: Axter Ltd.
 - Product reference: Grass mat.
 - Planting mix: As required.
- 401 BIODIVERSE PLANTING if required.
- Supplier: _____
 - Type: Plug plants, seeds etc as determined by landscape consultant
- 420 EDGE RETAINING PROFILE To exposed edges of greening.
- Manufacturer: Axter Ltd.
 - Product reference: Axter edge profile.
 - Material: Aluminium.
 - Height: To depth of planting.
- 430 INSPECTION CHAMBERS To all internal rainwater outlets.
- Manufacturer: Axter Ltd.
 - Product reference: Axter inspection chamber.
 - Material: Polyester powder coated steel.
 - Size: 300 x 300 mm.
 - Depth: To suit planting.
 - Access covers: integral into the unit.
 - Features: perforated base.

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- 460 SUPPORT PEDESTALS for paving slabs.
- Manufacturer: Axter Ltd.
 - Product reference: Axter adjustable paving slab supports.
 - Type: Screw jack pedestal.
 - Material: Recycled polypropylene.
 - Dimensions: As required.
 - Additional pedestals: Adjacent to perimeters.
 - Accessories: Not required.

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.

780 FILTER MEMBRANE INSTALLATION

- Joints: Minimize.
 - Overlaps (minimum): 150 mm.
- Fitting: Loose laid.
- Upstands: 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 (maximum): 150 mm or as determined by the landscaping consultant.
 - 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.

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- Edges: Finish with whole blankets.
- Consolidation: Firm as laying proceeds to ensure full contact with the growing medium.

Do not use rollers.

- Dressing: 2-5 mm horticultural grit.
 - 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: Overlapped by roof coating.

830 INSPECTION CHAMBER INSTALLATION

- Location: Install centrally over drain outlet.
 - Orientation: Align parallel with adjacent features.
- Bedding: Proprietary support base.
- Backfill: Ballast.
- Surround: Growing medium.

840 PEDESTAL INSTALLATION

- Ensure that surface to accept pedestals is clean and free of debris.
- Setting out: Mark centre-point of pedestal on substrate surface, with perpendicular guidelines to ensure square layout.
 - Orientation: Align parallel with adjacent features.
 - Spacing: To suit paving material and dimensions.
- Overall movement tolerance (maximum): 3 mm.

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: as required.

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