

## NBS Specification

System reference	AXTER INTENSIVE GREEN ROOF with WILOTEKT-PLUS STRUCTURAL WATERPROOFING
------------------	--

### Q37 Green roofs (INTENSIVE)

To be read with Preliminaries / General conditions.

#### 110 INTENSIVE GREEN ROOF

This section to be added to Section J31 WILOTEKT-PLUS Liquid Applied waterproof coatings

- Roof type: As section J31.
  - Substrate: As section J31.
  - Slope: As drawing no. \_\_\_\_\_
- Waterproofing: WILOTEKT-PLUS as Section J31 Clause 130A.
- Thermal insulation: As Section J31 Clause 130A.
- Protection: Axter special breather membrane as Clause 335.
- Moisture control layers: Axter DRAIN plus a layer of Axter's special filter layer loose laid.
- Growing medium: Axter Intensive Substrate.
  - Depth: As landscape designer's design.
- Vegetation: Planting (supplied and installed by others) in accordance with landscape designer's planting scheme and requirements.
- Accessories: Axter inspection chambers to be installed over all internal rainwater outlets. 20 - 40 rounded washed river gravel to be provided at all perimeters and major protrusions. Irrigation system (supplied and installed by others) in accordance with landscape designer's requirements.  
Other accessories as required in the landscape designer's design.

#### 140 PAVING AND DECKING SYSTEMS

- Type: As landscape designer's requirements.
- Paving support: Axter adjustable 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 landscape designers' requirements.

### PRODUCTS

#### 310A INVERTED ROOF INSULATION TO INTENSIVE ROOF

- Manufacturer: Axter Ltd
  - Product reference: AXTER XPS.
  - Type: Extruded polystyrene board to BS EN 13164.
- Compressive strength: 300 kPa
- Edges: Rebated.
- Thickness: As required by thermal calculation.

or

*Axter - Green Roofs (Intensive)*

*This specification is for guidance only and Axter Ltd cannot be held responsible for any errors or omissions. It is the specifier's responsibility to ensure that the specification is suitable for the requirements of the construction.*

## NBS Specification

System reference	AXTER INTENSIVE GREEN ROOF with WILOTEKT-PLUS STRUCTURAL WATERPROOFING
------------------	--

- Product reference: AXTER HYDROSHIELD.
  - Type: Expanded polystyrene board to BS EN 13164
  - Compressive strength: [200 kPa].
  - Edges: Rebated.
  - Thickness: As required by thermal calculation.
- 335 SEPARATION LAYER Over thermal insulation
- Manufacturer: Axter Ltd
    - Product reference: Axter breather membrane.
  - Material: As drawing ref. no. \_\_\_\_\_
    - Thickness: 0.2 mm.
- 350 DRAINAGE LAYER TO INTENSIVE ROOF
- Manufacturer: Axter Ltd.
    - Product reference: Axter DRAIN.
  - Material: Perforated expanded polystyrene board.
    - Depth: 40 mm.
  - Infill: Not required.
- 360 FILTER MEMBRANE To Intensive Roof
- Manufacturer: Axter Ltd.
    - Product reference: Axter Filter layer.
  - Material: Non woven polyester.
    - Mass: 200 g/m<sup>2</sup>.
- 430 INSPECTION CHAMBERS Over all internal rainwater outlets
- Manufacturer: Axter Ltd.
    - Product reference: Axter Inspection Chamber.
  - Material: Polyester powder coated steel.
  - Size: 300 x 300 mm.
    - Depth: To depth of greening.
  - Access covers: Integrated.
  - Features: Perforated bottom edge.
- 440 VEGETATION BARRIER around roof perimeter and all major protrusions
- Material: 20-40 mm ballast.
  - Depth: To suit greening.
  - Width: min 500 mm.
- 460 SUPPORT PEDESTALS TO SUPPORT PAVING SLABS.
- Manufacturer: Axter Ltd.
    - Product reference: Axter Adjustable Paving Slab supports.
  - Type: Screw jack pedestal.
  - Material: Recycled polypropylene.
  - Dimensions: As drawing \_\_\_\_\_.
  - Additional pedestals: Adjacent to perimeters.
  - Accessories: Not required.

*Axter - Green Roofs (Intensive)*

*This specification is for guidance only and Axter Ltd cannot be held responsible for any errors or omissions. It is the specifier's responsibility to ensure that the specification is suitable for the requirements of the construction.*

## NBS Specification

System reference	AXTER INTENSIVE GREEN ROOF with WILOTEKT-PLUS STRUCTURAL WATERPROOFING
------------------	--

### 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 upstands: Fit full sized pieces.
  - Penetrations: Cut cleanly and fit closely.
- Stability: Springing and rocking not permitted.
- Protection: Cover to prevent wind uplift.

#### 770 DRAINAGE LAYER INSTALLATION

- Extent: Continuous over entire roof area.
- Fitting: Butt joint.
- Upstands: Fit closely around penetrations and outlets.

#### 780 FILTER MEMBRANE INSTALLATION

- Joints: Minimize.
  - Overlaps (minimum): 100 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.
  - Sequence: Gently firm each layer before spreading the next.

*Axter - Green Roofs (Intensive)*

*This specification is for guidance only and Axter Ltd cannot be held responsible for any errors or omissions. It is the specifier's responsibility to ensure that the specification is suitable for the requirements of the construction.*

## NBS Specification

System reference	AXTER INTENSIVE GREEN ROOF with WILOTEKT-PLUS STRUCTURAL WATERPROOFING
------------------	--

### 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: Manufacturer's standard.

### 830 INSPECTION CHAMBER INSTALLATION

- Location: Install centrally over drain outlet.
  - Orientation: Align parallel with adjacent features.
- Bedding: Proprietary support base.
- Backfill: Granular material.
- 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.