

Q37 Green roofs

To be read with Preliminaries/General conditions

GENERAL

130 EXTENSIVE GREEN ROOF TO SECOND AND THIRD FLOOR EAST ROOFS, FOURTH FLOOR NORTH ROOF AND FIFTH FLOOR ROOF

- Roof type: Warm.
 - Substrate: Plywood 18mm thick on timber joists at 400mm centres..
 - Slope: Flat.
- Waterproofing: Single layer polymeric sheet as section J42.
- Thermal insulation: Rigid polyisocyanurate foam (PIR) board as section J??.
- Protection: Root barrier.
- Moisture control layers: Submit proposals.
- Growing medium: Extensive growing medium.
 - Depth: 75-100 mm.
- Vegetation: Submit proposals.
- Accessories: Submit proposals.

PERFORMANCE

210 GENERAL DESIGN

- Green roof and associated features: Complete the detailed design.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
- Performance criteria: Ensure waterproof integrity to roof, minimum 15 year life expectancy, plants suitable for growth below PV panels .

255 MAXIMUM PERMITTED GREEN ROOF LOADS

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

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.

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.

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. Secure with biodegradeable pegs.
 - Edges: Finish with whole blankets.
 - Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.
- Dressing: Growing medium .
 - Application: Brush in to fill joints.
- Watering: Thorough, immediately after laying and dressing.

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: 3 .