

J31 LIQUID APPLIED WATERPROOF ROOF COATINGS

Refer to A10 for list of related documents which are to be read with this Work Section.

J31.100 COMPLIANCE AND SCOPE

COMPLIANCE

J31.101 General

- a) Refer to and comply with A15.100 of the Architectural Specification regarding the Contractor's design responsibility for this element of the works.
- b) Engage a specialist sub-contractor and comply with A15.103, to complete the Detailed Design of this element of the works. Maintain the intent of the Design Drawings (A10.104 d i)), where the Architect's role will be limited to checking compliance with quality, design and visual intent only.
 - i) Comply with A15.103 with regard to the use of any 'indicative' references stated herein.

SCOPE

Hot Applied Roof Covering Systems

J31.102 Type RFS-211 Liquid Applied Inverted Roof System

Monolithic, fully bonded, hot-applied membrane roof system with paving slab, pebbles and extensive green roof finish.

- a) Indicative manufacturer: Radmat Building Products Limited.
- b) Indicative reference: PermaQuick PQ6100.
- c) Substrate: Cast in structural concrete. Refer to the Structural Engineer's documentation.
- d) Preparation: Concrete substrate applications only, to be clean, dry and free of contaminants and loose particles, as recommended by the manufacturer.
- e) Surface conditioner primer to suit the substrate.
- f) Membrane:
 - i) One-part hot-applied rubberised bituminous membrane base layer.
 - ii) Non-woven polyester fabric reinforcement layer, laid and bonded between base and finishing layers, as recommended by the system manufacturer:
 - Colour: Black.
 - iii) One-part hot-applied rubberised bituminous membrane finishing layer.
- g) Protection sheet: Radmat Texsa Protection Sheet (torched at laps).
- h) Cap sheet: EshaFlex 370 Grey mineral, 4.5mm torch applied SBS modified bituminised polyester/fibreglass cap sheet.
- i) Insulation:
 - i) Non-combustible rigid extruded polystyrene (XPS) insulation laid loose over roofing membrane, to suit the required roof levels and drainage requirements, including all associated insulation of upstands and penetrations.
 - ii) Indicative reference: ProTherm G XENERGY SL-EP.
 - iii) The thickness and density of the insulation to achieve the U-value requirements of 0.15W/ m²K or better.
 - iv) Radmat ProTherm Xenergy MinK Water Flow Reducing Layer laid over the insulation with 300mm laps.
- j) Gutter zone to level 7 terrace (Green roof area):
 - i) Type: Vacuum insulated panel (VIP) rigid insulation laid loose over roofing membrane, to suit the required roof levels and drainage requirements, including all associated insulation of upstands and penetrations.
 - ii) Indicative reference: ProTherm Quantum Vacuum Insulated Panel (VIP).
 - iii) The thickness and density of the insulation to achieve the U-value requirements of 0.15W/ m²K or better.
 - iv) Radmat ProTherm Xenergy MinK Water Flow Reducing Layer laid over the insulation with 300mm laps.
- k) Varying finishing layer(s) as the Design Drawings, comprising:
 - i) Green roof, as Q37.
 - ii) Paving slabs arranged as the Design Drawings.
 - iii) Stone ballast: 20-40mm washed, round aggregate such as indicatively manufactured by Marshalls, laid to levels shown on the Design Drawings. Provide ballast stops inclusive of factory formed drainage apertures, whilst retaining the ballast.
- l) Pressed metal components/ accessories to be dark grey coloured polyester powder finished aluminium and of profiles, both to be accepted by the Architect through sampling.

- m) Insulated drainage outlet assemblies with compatible leaf/ gravel guards to be to the manufacturer's recommendations and acceptable to the Architect.
- n) Vapour control layers, sub-layers, metal framing and pitch pockets as required, counter flashings, movement/ control joints, sealants (colour co-ordinated where visible), fixings and fastenings, fillets, protection boards, stops, termination bars, adhesives and other accessories recommended by the system manufacturer to complete the installation.

J31.103**Type RFS-212 Liquid Applied Inverted Roof System**

Monolithic, fully bonded, hot-applied membrane roof system with paving slab finish.

- a) Indicative manufacturer: Radmat Building Products Limited.
- b) Indicative reference: PermaQuick PQ6100.
- c) Substrate: Cast in structural concrete. Refer to the Structural Engineer's documentation.
- d) Preparation: Concrete substrate applications only, to be clean, dry and free of contaminants and loose particles, as recommended by the manufacturer.
- e) Surface conditioner primer to suit the substrate.
- f) Membrane:
 - i) One-part hot-applied rubberised bituminous membrane base layer.
 - ii) Non-woven polyester fabric reinforcement layer, laid and bonded between base and finishing layers, as recommended by the system manufacturer:
 - Colour: Black.
 - iii) One-part hot-applied rubberised bituminous membrane finishing layer.
- g) Protection sheet: Radmat Texsa Protection Sheet (torched at laps).
- h) Cap sheet: EshaFlex 370 Grey mineral, 4.5mm torch applied SBS modified bituminised polyester/fibreglass cap sheet.
- i) Insulation:
 - i) Non-combustible rigid extruded polystyrene (XPS) insulation laid loose over roofing membrane, to suit the required roof levels and drainage requirements, including all associated insulation of upstands and penetrations.
 - ii) Reference: ProTherm G XENERGY Ultra.
 - iii) The thickness and density of the insulation to achieve the U-value requirements of 0.18W/ m²K or better.
 - iv) Radmat ProTherm Xenergy MinK Water Flow Reducing Layer laid over the insulation with 300mm laps.
- j) Varying finishing layer(s) as the Design Drawings, comprising:
 - i) Paving slabs arranged as the Design Drawings.
 - ii) Stone ballast: 20-40mm washed, round aggregate such as indicatively manufactured by Marshalls, laid to levels shown on the Design Drawings. Provide ballast stops inclusive of factory formed drainage apertures, whilst retaining the ballast.
- k) Pressed metal components/ accessories to be ***dark grey/ black*** coloured polyester powder finished aluminium and of profiles, both to be accepted by the Architect through sampling.
- l) Insulated drainage outlet assemblies with compatible leaf/ gravel guards to be to the manufacturer's recommendations and acceptable to the Architect.
- m) Vapour control layers, sub-layers, metal framing and pitch pockets as required, counter flashings, movement/ control joints, sealants (colour co-ordinated where visible), fixings and fastenings, fillets, protection boards, stops, termination bars, adhesives and other accessories recommended by the system manufacturer to complete the installation.

J31.200**QUALITY AND WORKMANSHIP****QUALITY**

Refer to A70 for detailed descriptions of Submittals and Quality Requirements.

J31.201

Samples

- a) Waterproof membrane: 300mm x 300mm.
- b) Insulation.
- c) Paving slabs.
- d) Stone ballast.
- e) Visible accessories.

J31.202

Mock-ups, Prototypes, Benchmarks

- a) Mock-ups:
 - i) Not required.