

Protec Balcony System
Warm Roof
New Build (0.18W/m²K)
(PU Bonded)

OUTLINE NBS SPECIFICATION



DATE:
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REF: PR20202(NBS)

nbsPlus

 **polyroof**
advanced liquid roofing

J31 LIQUID APPLIED WATERPROOF ROOF COATINGS

To be read with Preliminaries/General conditions.

TYPE(S) OF COATING

120 WARM DECK ROOF COATING

- Substrate: Suitable structural roof deck (e.g. Plywood, OSB3, Concrete or structural metal roof deck)
 - Preparation: Prime surfaces as required with Alutrix FG35 primer (refer to manufacturer's instructions)
- Vapour Control Layer: Self-adhesive Alutrix Aluminium vapour barrier
- Insulation: Polyroof 'RES' Balcony Insulation (T&G) (rigid PIR insulation T&G balcony board)
- Insulation adhesive: Polyroof approved Dove PR Insulation Adhesive
- Overlay to insulation: Not required
- Carrier membrane: Not required
- Waterproof coating: Protec System (flexible polyester resin)
 - System manufacturer: Polyroof Products Limited
Furness House
Castle Park Industrial Estate
Flint
Flintshire
CH6 5XA
T: 0800 801 890
E: technical@polyroof.co.uk
 - Primer reference: Uni-Primer DP
 - Coating reference: Protec System
 - Primer application: Uni-Primer DP at 4 - 6m²/Litre.
 - Local Reinforcements: Protec Resin and Protec Taping Mat to all insulation board joints, all junctions at upstands, penetrations and outlets
 - Protec first coat application: 1.3 - 1.5 Litres/m²
 - Protec second coat application: 0.5 Litres/m²
 - Reinforcement: Polyroof Matting (450g/m²) to general areas in first coat
 - Minimum dry film thickness: 1.85mm
 - Colour: Light Grey or Chromite Grey (consult Polyroof Technical Services for advice regarding other colours).
- Surface protection Quartz Sand anti-slip grit and Polyfinish hard-wearing PMMA finish
- Accessories: Polyroof pre-formed GRP trims
- Other surfaces: For preparation and priming of any other surfaces not itemised in this outline specification please refer to Polyroof Coatings Application Manual issued by Polyroof Products Limited for guidance.
- Installation: The system should only be installed by contractors in possession of a current approval certificate and applied strictly in accordance with the Polyroof Coatings Application Manual issued by Polyroof Products Limited.

PERFORMANCE

210 ROOF PERFORMANCE

- General: Firmly adhered, free draining and weathertight

PRODUCTS

315 TIMBER TRIMS

- Quality: Planed, free from wane, pitch pockets, decay and insect attack (except ambrosia beetle damage)
- Moisture content at time of covering (maximum): 22%
- Preservative treatment: CCA as section Z12 and British Wood Preserving and Damp-proofing Association Commodity Specification C8

330 VAPOUR CONTROL LAYER

- Type: Foil faced aluminium bituminous membrane
- Manufacturer: PDT Sealing Systems Ltd
- Product Reference: Alutrix 600
- Primer: Alutrix FG35 Primer
- Thickness: 600 micrometres
- Vapour resistance: 4,310 MNs/g

333 RIGID URETHANE FOAM WARM DECK ROOF INSULATION

- Type: Polyisocyanurate (PIR) roofboard to BS 4841-3
- Manufacturer: Recticel Insulation Products
 - Product Reference: Polyroof 'RES' Balcony Insulation (T&G)
- Density: 28-36 kg/m³
- Edges: Tongue and grooved
- Thickness: TBC in order to comply with current building regulation standards (Note: standard thicknesses are 53, 93 & 123mm). For insulation thicknesses above 123mm a two layer system may be required. Please consult Polyroof Technical Services for further advice.
- Facing: Foil

353 WATERPROOF COATING

- Type: Flexible polyester resin
- Manufacturer: Polyroof Products Limited
 - Product Reference: Protec System
- Primer: Uni-Primer DP at 4 - 6m²/Litre
- Local Reinforcements: Protec Resin and Protec Taping Mat to all insulation board joints, all junctions at upstands, penetrations and outlets.
- Protec first coat application: 1.3 - 1.5 Litres/m²
- Protec second coat application: 0.5 Litres/m²
- Reinforcement: Polyroof Matting (450g/m²) to general areas in first coat
- Colour: Light Grey or Chromite Grey (consult Polyroof Technical Services for advice regarding other colours).

- Minimum dry film thickness: 1.85mm
- Surface protection: Quartz Sand anti-slip grit and Polyfinish hard-wearing PMMA finish

355 PERIMETER TRIMS

- Type: GRP trims
- Manufacturer: Polyroof Products Limited
 - Product Reference: Polyroof Pre-Formed GRP Trims
- Colour: Coated with waterproof coating
- Size: Variable depending upon trim type
- Lengths: 2.44m

385 SURFACE PROTECTION (ANTI-SLIP FINISHES)

- Manufacturer: Polyroof Products Limited
 - Product Reference: Quartz Sand & Polyfinish (for regular foot traffic).
- Width: To be determined by contractor.
- Colour/Finish: Light Grey.
- Additives: Quartz Sand anti-slip grit and Polyfinish hard-wearing PMMA finish.
 - Coverage: Apply 3rd coat of Protec Resin at a minimum coverage rate of 0.5Litres/m² and whilst wet broadcast clean dried Quartz Sand (0.7 – 1.2mm) at an approximate coverage rate of 4.0kg/m². Once cured remove loose sand. Approximate finished coverage rate of sand will be 2.5kg/m² and the remaining 1.5kg may be recovered for future use. Apply Polyfinish Resin using a Polyfinish Spreader at a minimum coverage rate of 0.6Litres/m² (1.67m²/Litre). Allow to cure.
- Surface coverage: Even and full.

EXECUTION GENERALLY

410 ADVERSE WEATHER

- Do not apply coatings:
 - If the air temperature is outside the range of 3°C – 30°C, unless otherwise permitted by the coating manufacturer.
 - In damp or cold conditions which could cause surface condensation; during frost or if there is a risk of rain.
 - In high winds (speeds > 7 m/s) unless adequate temporary windbreaks are erected adjacent to the working area.
- Unfinished areas of roof: Keep dry.

420 SUITABILITY OF SUBSTRATES

- Substrates generally:
 - Secure, clean, dry, smooth, free from frost, contaminants, loose material, voids, protrusions and organic growths.
 - Compatible with coating system.
- Preliminary work: Complete, including:
 - Formation of upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints.
 - Fixing of battens, fillets and anchoring plugs / strips.
- Moisture content and stability: Must not impair integrity of roof.

NEW SUBSTRATES/VAPOUR CONTROL LAYERS/WARM DECK BALCONY INSULATION

610 FIXING TIMBER TRIMS

- Fasteners: Sherardized steel screws.
- Fixing centres (maximum): 600mm

630 LAYING VAPOUR CONTROL LAYER

- Membrane: Bonded fully to substrate / Bonded to all crowns of the profiled sheet
- Laps: Sealed using materials and method recommended by membrane manufacturer.
- Upstands, kerbs and other penetrations: Enclose edges of insulation. Lap with coatings to form a complete seal.

640 LAYING WARM DECK BALCONY INSULATION

- Setting out:
 - Long edges: Fully supported and run at right angles to direction of span / existing boards / metal deck troughs / structure
 - Joints: Tongue and Groove.
 - Ends: Adequately supported
 - Joints: Tongue and Groove (staggered).
- Bonding: Polyroof approved Dove PR Insulation Adhesive applied in accordance with manufacturer's recommendations
- Mechanical fixing: Not required
- Completion: Boards must be in good condition, well-fitting and stable.

660 FIXING PERIMETER TRIMS

- Fasteners: 18mm large headed galvanised clout nails to BS 1210
 - Fixing: 25mm from ends at 150 mm (maximum) centres.
- Jointing:
 - Butt straps / timber battens as appropriate.
- Corner pieces: Formed on-site.

ROOFING COATING SYSTEM

720 APPLYING PRIMERS

- Coverage per coat (minimum): One coat of Uni-Primer DP at 4 - 6m²/Litre
- Surface coverage: Rolled / Brushed well in to ensure local or full area coverage according to type.
- Coats: Allow to dry before overcoating.

740 MOVEMENT JOINTS IN SUBSTRATE

- Debonding tape: Apply over movement joints.
- Reinforcement strip: Apply over debonding tape.
 - Bedding: Preliminary coating application.
 - Joints: Lap in length.
 - Bond: Continuous over whole surface, with no air pockets.

- Condition at completion: Smooth.

750 PRELIMINARY LOCAL REINFORCEMENTS

- Reinforcement strip: Protec Resin and Protec Taping Mat to insulation board joints and all junctions at upstands, penetrations and outlets.
 - Bedding: Preliminary coating application.
 - Joints: Lap in length.
 - Bond: Continuous over whole surface, with no air pockets.
 - Condition at completion: Smooth.

760 APPLICATION OF ROOF COATINGS

- Continuity: Maintain full thickness of coatings around angles, junctions and features.
- Rainwater outlets: Form with watertight joints.
- Drainage systems: Do not allow liquid coatings to enter piped rainwater or foul systems.
- Edge trims: Apply coatings over horizontal leg of trim and into recess.

770 SKIRTINGS AND UPSTANDS

- Top edges of coatings: Where not protected by flashings, apply into chases cut to a minimum depth of 10 mm.
- Completion of chases: When coatings are fully cured, prepare chase and apply sealant as section Z22.
- Sealant: To BS EN ISO 11600
- Colour: As coating

COMPLETION

910 INSPECTION

- Coating surfaces: Check when cured for discontinuities.
 - Defective Areas: Apply another coating.

940 COMPLETION

- Roof areas: Clean.
- Outlets: Clear.
- Flashings: Dressed into place.
- Work necessary to provide a weathertight finish: Complete.
- Storage of materials on finished surface: Not permitted.
- Completed coatings: Protect against damage

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