J21 Mastic asphalt roofing/ insulation/ finishes

To be read with Preliminaries/ General conditions.

TYPE OF COATING/ PAVING

120A  INVERTED ROOF WATERPROOFING to car park surfaces and upstands

• **Substrate:** Concrete deck.
  - Preparation: Primer.
• **Waterproof covering:**
  - System manufacturer: Axter Ltd, West Road, Ransomes Europark, Ipswich, IP3 9SX
    Tel 01473724056, Fax 0147723263, email info@axterltd.co.uk, internet www.axter.co.uk
  - Waterproof layer: Axter BARYPRENE 25 SI polymer modified bituminous membrane specially adapted for use under mastic asphalt with a partially bonded undersurface.
  - Attachment: Partial bond - Loose laid ensuring 100mm side and 150mm end overlaps between adjacent lengths. Along the side lap the edge with the holes must form the underlap and at roll ends the perforated kraft paper on the underside of the overlap sheet is removed for a distance of 150mm from the end of the roll. Where there is likely to be a change of thickness in the mastic asphalt covering then the perforated kraft paper needs to be removed for a distance approx 150mm either side of that change of thickness to ensure a full bond. Note - The heat from the application of the paving grade mastic asphalt will seal the side and end laps.
  - Details: as skirtings clause 180A.

165A  PAVING to BARYPRENE surfaces

• **Substrate:** Concrete slab.
  - Preparation: waterproofed with BARYPRENE 25 SI membrane as clause 120A.
• **Paving:** Mastic asphalt.
• **Manufacturer:** Contractor's choice.
• **Product reference:** Paving/ Wearing Grade Mastic Asphalt to BS EN 13108.
• **Application:** Min 20 mm thick.
• **Colour:** As required.
• **Finish:** Crimping.
• **Upstands / skirtings:** As Clause 180A.
• **Accessories:** As drawing ref no. __________
180A SKIRTINGS/ VERTICAL WORK To all upstands
  • Substrate: As drawing ref no.________
    - Preparation: Primer.
  • Corner reinforcement: After laying the BARYPRENE 25 SI into the base of all upstands install a min 80mm wide strip of self adhesive STICKFLEX ALU, centrally to the angle, so that the upstand part is a min of 4cm.
  • Reinforcement: once the paving grade asphalt has been laid and cooled install a strip of HYRANGER PY TS min 250mm wide centrally to the angle of the upstand.
  • Waterproofing; Axter Ltd's ARMA CPV colour to choice or metal faced ARMALU torch applied with a min 15cm talon on to the surface of the paving grade mastic asphalt.
  • Surface protection: If required this can be in epoxy resin or a reinforced mortar upstand.
  • Accessories: As drawing ref. no. __________.

PERFORMANCE

210 ROOF PERFORMANCE
  • General: Secure, free draining and weathertight.

PRODUCTS

320 PRIMER to concrete and metal surfaces
  • Type: Bituminous.
  • Manufacturer: Axter Ltd.
    - Product reference: VERNIS ANTAC GC.

345 PERIMETER TRIMS
  • Type: GRP.
  • Manufacturer: Axter Ltd.
    - Product reference: AXTRIM.
  • Colour: As drawing ref. no. __________
  • Length (maximum): 3m.

380 PROPRIETARY MOVEMENT JOINTS Specially designed movement joint system from Axter for use with light vehicles.
  • Manufacturer: Axter Ltd.
    - Product reference: EXCELPARK.
  • Size: As drawing ref. no. __________
NBS Specification

<table>
<thead>
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404 MASTIC ASPHALT (PAVING)
- Manufacturer: Contractor's choice.
- Undercoat: Not required.
  - Application: Not required.
- Wearing coat: To BS EN 13108.
  - Application: Min 20 mm thick in one coat.
- Colour: As required.
- Finish: Crimping.
- Margin infill: Axter Ltd's HYRAFLEX flexible joint filler.

455 SAND FOR RUBBING
- Type: Clean, coarse sand from natural deposits, free from loam.
  - Size: Passing a 600 micrometre sieve and retained on a 212 micrometre sieve.

490A MINERAL/ METAL FACED CAP SHEET TO UPSTANDS AND OTHER DETAILS
- Manufacturer: Axter Ltd.
  - Product reference: ARMA CPV or ARMALU.
  - Attachment: Torch applied.

EXECUTION GENERALLY

510 ADVERSE WEATHER
- General: Do not lay mastic asphalt in wet or damp conditions unless effective temporary cover is provided over working area.
- Unfinished areas of the roof: Keep dry.

520 INCOMPLETE WORK
- Daywork joints in warm roofs and edges of phased roofing: Adequately protected and fully weathertight.

530 APPLYING PRIMERS
- Coverage per coat (minimum): 0.2 L/m².
- Surface coverage: Even and full.
- Coats: Fully bonded. Allow volatiles to dry off thoroughly between coats.

550 CONTROL SAMPLES
- Type of mastic asphalt: Paving to BS EN 13108.
- Sample area:
  - Location: As requested.
  - Details: As required.
- Approval of appearance: Obtain before proceeding.

Axter. 6.18
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SUBSTRATES:

610 SUITABILITY OF SUBSTRATES
  • Substrates generally:
    - Secure, even textured, clean, dry and frost free.
  • Preliminary work: Completed, including:
    - Chases (minimum): 25 x 25 mm.
    - External angles: Chamfered where required to maintain full thickness of mastic asphalt.
    - Formation of upstands and kerbs.
    - Grading to correct falls.
    - Movement joints.
    - Penetrations/Outlets.
  • Moisture content and stability of substrate: Must not impair integrity of roof.

640 FIXING TIMBER TRIMS
  • Fasteners: Sherardized steel screws.
    - Fixing centres (maximum): As drawing ref. no.________

642 KEYING TO VERTICAL/ SLOPING DENSE CONCRETE
  • Surface preparation: Remove mould oil, clean and apply proprietary high bond primer or proprietary keying mix of cement:sand slurry incorporating a bonding agent.

644 KEYING TO NEW BRICKWORK/ DENSE BLOCK WORK
  • Joints: Flush pointed.
  • Surface preparation: Apply proprietary high bond primer.

646 KEYING TO EXISTING BRICKWORK/ DENSE BLOCK WORK
  • Joints: Sound and flush pointed.
  • Surface preparation: Clean and apply proprietary high bond primer.

648 KEYING TO METAL SURFACES
  • Surface preparation: Clean and apply proprietary high bond primer.

649 APPLYING METAL LATHING TO VERTICAL/ SLOPING If required
  • Placing:
    - Long way of mesh: Horizontal.
    - Pitch of horizontal strands: Sloping upwards away from background.
  • Butt joints: Wire tie between sheets at 75 mm centres.
  • Method of fixing: Stainless steel staples.
    - Perimeter edges: 75 mm centres.
    - General areas (maximum): 150 mm vertical and horizontal centres.

690 MARGIN INFILL TO ANGLE FILLETS IN WARM DECK ROOF
  • Infill material: Axter Ltd’s HYRAFLEX.
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**ASPHALTING**

720 DELIVERY
- Condition of mastic asphalt as delivered to site:
  - Hot-prepared, do not remelt on site, or
  - Blocks: Remelt on site, mix thoroughly. Temperature of material (maximum), 230°C.

730 TRANSPORTING
- Transport distances: Minimize to avoid excessive cooling of molten mastic asphalt.
- Buckets, barrows or dumpers used for mastic asphalt: Line with minimum quantity of fine inert dust. Use silica or similar acid resisting dust where acid resisting mastic asphalt is being used.

735 LOCALIZED HEATING
- Blowlamps and gas torches: Use only types with controlled gradual heating during laying, removal and repair of mastic asphalt.

740A LAYING MASTIC ASPHALT
- Standard: To BS EN 13108.
- Application:
  - In bays to even thickness.
  - Re-heated asphalt: Do not use.
- External angles, junctions and tuck-ins: Maintain full thickness of asphalt.
- Fillets at internal angles: Solid, fully fused to asphalt coating.
- Previously laid coats: Protect whilst exposed.
- Successive coats:
  - Timing: Apply without delay and within same working period.
  - Coats: Apply at right angles to preceding.
- Stagger joints between bays in consecutive coats (minimum): 75 mm.
- Condition of contact edges of previously laid bays: Warm and clean.
- Blowing: Pierce and make good affected areas while mastic asphalt is still at working temperature.
- Completion: During final floating operation, whilst asphalt is still warm, apply sand to horizontal surfaces and rub in well using wooden float. Remove surplus material.
- Surface condition at completion: Smooth and free from imperfections. Firmly adhered, weatherproof and free draining.

750 MASTIC ASPHALT SKIRTINGS AND VERTICAL WORK
- Top edge: Tuck into 25 x 25 mm continuous splayed chase or groove.
- External angles: Maintain full thickness of asphalt.
- Splayed top: Form to shed water away from substrate.
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760 MARGIN INFILL TO MASTIC ASPHALT PAVINGS
- Top coat: Set 100 mm back from upstands.
- Infill: Roofing grade mastic asphalt.
- Completion: Provide angle fillet to infill.

775A INSTALLING PROPRIETARY MOVEMENT JOINTS EXCEL PARK
- Location: Centre over structural movement joint, and bed to exact finished level as instructed by Axter Ltd.
  - Bedding: As drawing ref. no.
  - Fixing: As drawing ref. no.

785 FIXING PERIMETER TRIMS
- Separating layer: Terminated at trim. Do not carry under or over.
- Trim:
  - Setting out (minimum): 3mm from wall or fascia.
  - Fasteners: 50mm stainless steel countersunk wood screws to BS 1210.
  - Fixing: 30mm from ends of trims and 300mm (maximum) centres.
  - Jointing sleeves: Fix one side only.
- Expansion gap between ends of trim: Not required.
  Corner pieces: Purpose made.

SURFACING

874 LAYING MINERAL/ METAL FACED CAP SHEETS
- Setting out: Neatly, with carefully formed junctions.
- Face of capsheet: Do not mark, crease or stain.

876 CRIMPING
- Finish: Whilst asphalt is still sufficiently plastic, roll surface with indenting or crimping roller.
- Indentations: Regular and even.

COMPLETION

910 INSPECTION
- Interim and final roof inspections: Submit reports.

940 COMPLETION
- Roof areas: Clean.
  - Outlets: Clear.
- Work necessary to provide a weathertight finish: Complete.
- Storage of materials on finished surface: Not permitted.
- Completed mastic asphalt roof coating: Do not damage. Protect from petroleum based solvents and other chemicals, traffic and adjacent or high level working.

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