

Network Rail

Deansgate Station

Roof repairs Rev.B

05-12-2023

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Ss_15_30_90_86

Timber section repair systems

Systems

Ss_15_30_90_86 Timber section repair systems

1. Description: Timber roof lights to be cleaned down. Rotten wood to be treated with Polymer solution and wood hardener and painted.
2. System performance: Ss_15_30_90/220 Objectives of repair and remedial works; Ss_15_30_90/230 Functional performance – repair system; Ss_15_30_90/250 Design working life Ss_40_90_60_85 Special coating systems
3. Survey: Contractor to carry out survey prior to undertaking of works and confirm scope with design team.
4. Replacement timber members: Confirmed with design team if severity of rot is unsalvageable.
5. Execution: Ss_15_30_90/645 Removal of existing finish
6. System completion: Ss_15_30_90/820 Record of location and extent of repairs

Ss_40_90_60_85 Special coating systems

1. Description: Polymer Repair solution for degrading timber elements
2. System performance: Ss_40_90_60/290 Compliance with performance requirements; Ss_40_90_60/230 Resistance to moisture of coating system
3. System manufacturer: Rot specialist to submit proposals.
4. Sealing of internal movement joints: As recommended by chosen system manufacturer.
5. External pointing to existing frames: As recommended by chosen system manufacturer.
6. Additional coatings to surfaces that will be concealed when component is fixed in place: Ss_40_90_60_95 Waterborne paint systems
7. Execution: Ss_40_90_60/637 Previously coated wood; Ss_40_90_60/633 Previously coated surfaces – blast cleaning; Ss_40_90_60/700 Applying coating generally
8. System completion: Ss_40_90_60/800 Information to be provided on completion; Ss_40_90_60/895 Verification of performance

Ss_40_90_60_95 Waterborne paint systems

1. Description: Paint system to newly repaired wood on roof windows.
2. System performance: Ss_40_90_60/205 Generic colour codes; Ss_40_90_60/230 Resistance to moisture of coating system; Ss_40_90_60/290 Compliance with performance requirements
3. System manufacturer: Submit proposals
4. Preparation: Clean and Prime
5. Initial coats: Pr_35_31_66_68 Primer-undercoats
6. Undercoats: Pr_35_31_66_99 Waterborne undercoats
7. Finishing coats: Pr_35_31_22_94 Water-based finishing coats
8. External pointing to existing frames: All gaps in existing frames to be filled prior to decoration.
9. Execution: Ss_40_90_60/603 Handling and storage of coating materials; Ss_40_90_60/620 Preparation for coating systems generally; Ss_40_90_60/637 Previously coated wood; Ss_40_90_60/633 Previously coated surfaces – blast cleaning; Ss_40_90_60/700 Applying coating generally
10. System completion: Ss_40_90_60/800 Information to be provided on completion; Ss_40_90_60/895 Verification of performance

System performance

Ss_15_30_90/220 Objectives of repair and remedial works

1. Objectives: Repair decayed timber to ensure structural integrity of framing for remainder of design working life of the building; aesthetic matching to satisfaction of heritage consultant.
2. Limitations: Limited only to the structural timber, glazing etc all to remain as existin gand be cleaned.

Ss_15_30_90/230 Functional performance – repair system

1. Type of structure: Existing timber windows
2. Location of defects: Rotted wood to main support frame.
3. Condition of structure: As pre-contract survey.
4. Design life: As Network Rails requirements.
5. Objectives and constraints: Minimise disturbance of existing roof finish and existing glazing.

Ss_15_30_90/250 Design working life

1. Existing structures: to suit Network Rail requirements.

Ss_40_90_60/205 Generic colour codes

1. Standard: Colour to be RAL 9010, from RAL Classic.

Ss_40_90_60/230 Resistance to moisture of coating system

1. Resistance to moisture penetration: Conducive to requirements set by relevant Building Regulations.
2. Control of surface and interstitial condensation: In accordance with BS 5250.
3. Design of external walls to resist damage from interstitial condensation: In accordance with BS 5250.

Ss_40_90_60/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Standard: In accordance with BS 6150.
3. Submittals
 - 3.1. Format: Test Results and Certification
 - 3.2. Timing: Before commencing installation

Products

Pr_35_31_22_94 Water-based finishing coats

1. Description: Gloss Finish to existing timber window frames
2. Manufacturer: Johnstone's Trade Paints - a brand of PPG Industries
3. Contact details
 - 3.1. Address: Huddersfield Road
Birstall
Batley
West Yorkshire
WF17 9XA
 - 3.2. Telephone: +44 (0)1924 354354
 - 3.3. Web: <https://ppgac.co.uk/>

- 3.4. Email: specifiers.acuk@ppg.com
- 4. Product reference: Aqua Water-Based Gloss
- 5. Sheen: Gloss.
- 6. Colour: White, RAL 9010
- 7. Film thickness: Dry: 38 µm; Wet: 91 µm.
- 8. Coverage: 10–12 m²/L.
- 9. VOC content: Low (0.37.99%).
- 10. Volume solids: 41.90%.
- 11. Drying time: Touch dry in 1–2 hours.
- 12. Application method: Brush or roller.
- 13. Third-party certification: BRE EN 15804 EPD. Indoor Air Comfort Gold - Eurofins.
- 14. Execution: Pr_35_31_22/703 Applying coating

Pr_35_31_66_68 Primer-undercoats

- 1. Description: Primer to existing timber window frames
- 2. Manufacturer: Johnstone's Trade Paints - a brand of PPG Industries
- 3. Contact details
 - 3.1. Address: Huddersfield Road
Birstall
Batley
West Yorkshire
WF17 9XA
 - 3.2. Telephone: +44 (0)1924 354354
 - 3.3. Web: <https://ppgac.co.uk/>
 - 3.4. Email: specifiers.acuk@ppg.com
- 4. Product reference: Advanced Multi-Surface Primer
- 5. Type: Water based.
- 6. Coverage: 10–12 m²/L.
- 7. Drying time: Touch dry in 1–2 hours.
- 8. VOC content: Medium (8–24.99%).
- 9. Application method: Brush or roller.

Pr_35_31_66_99 Waterborne undercoats

- 1. Description: Undercoat to existing timber window frames
- 2. Manufacturer: Johnstone's Trade Paints - a brand of PPG Industries
- 3. Contact details
 - 3.1. Address: Huddersfield Road
Birstall
Batley
West Yorkshire
WF17 9XA
 - 3.2. Telephone: +44 (0)1924 354354
 - 3.3. Web: <https://ppgac.co.uk/>
 - 3.4. Email: specifiers.acuk@ppg.com
- 4. Product reference: Johnstone's Trade Aqua Water Based Undercoat (Advanced Technology)
- 5. Colour:
- 6. Film thickness: Dry: 39 µm. Wet: 100 µm.

7. Coverage: 10–12 m²/L.
8. VOC content: Low (0.3-7.99%).
9. Volume solids: 39%.
10. Drying time: Touch dry in 1-2 hours. Recoatable after 4–6 hours.
11. Application method: Brush or roller.

Execution

Pr_35_31_22/703 Applying coating

1. Initial coats
 - 1.1. Number of coats: In accordance with manufacturer's instructions and Network Rail guidelines for applying coating systems.
 - 1.2. Thinning: In accordance with manufacturer's instructions.
 - 1.3. Application: Brush / Roller / Spray as required for best application.
2. Undercoats
 - 2.1. Number of coats: In accordance with manufacturer's instructions and Network Rail guidelines for applying coating systems.
 - 2.2. Application: Brush / Roller / Spray as required for best application.
3. Finishing coats
 - 3.1. Number of coats: In accordance with manufacturer's instructions and Network Rail guidelines for applying coating systems.
 - 3.2. Application: Brush / Roller / Spray as required for best application.

Ss_15_30_90/645 Removal of existing finish

1. Partial removal
 - 1.1. Extent: Remove minimum necessary to expose damaged or decayed wood. Feather the edge of remaining coating around repair site.
 - 1.2. Location: As per survey information.
 - 1.3. Process: Avoid release of hazardous content in the coatings.
2. Complete removal
 - 2.1. Extent: Remove completely back to bare wood.
 - 2.2. Location: As per survey information.
 - 2.3. Process: Avoid release of hazardous content in the coatings.

Ss_40_90_60/603 Handling and storage of coating materials

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

Ss_40_90_60/620 Preparation for coating systems generally

1. Standard: In accordance with BS 6150.
2. Substrates: Sufficiently dry in depth to suit coating.
3. Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Efflorescence salts: Remove.
5. Dirt, grease and oil: Remove.

6. Contamination of surfaces and substrates : Give notice.
7. Surface irregularities: Remove.
8. Joints, cracks, holes and other depressions: Fill flush with surface. Provide smooth finish.
9. Dust, particles and residues from preparation: Remove and dispose of safely.
10. Water-based stoppers and fillers: Apply before priming.
11. Oil-based stoppers and fillers: Apply after priming.
12. Doors, opening windows and other moving parts: Prime resulting bare areas.

Ss_40_90_60/630 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150, clause 11.5.
2. Contaminated or hazardous surfaces
 - 2.1. Coatings suspected of containing lead: Give notice.
 - 2.2. Substrates suspected of containing asbestos: Give notice.
 - 2.3. Significant rot, corrosion or other degradation of substrates: Give notice.
3. Risk assessments and method statements for suspected existing hazardous materials: Submit. Obtain approval before commencing work.
4. Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
6. Alkali affected coatings: Completely remove.
7. Retained coatings: Thoroughly clean to remove dirt, grease and contaminants. Provide key on gloss coated surfaces
8. Partly removed coatings: Apply additional preparatory coats to restore original coating thicknesses, with flush surface a junctions.
9. Completely stripped surfaces: Prepare as for uncoated surfaces.

Ss_40_90_60/633 Previously coated surfaces – blast cleaning

1. General requirements: Ss_40_90_60/630 Previously coated surfaces generally
2. Operatives: Trained/ experienced in blast cleaning. Submit evidence of training/ experience on request.
3. Dust and nuisance: Minimise.

Ss_40_90_60/637 Previously coated wood

1. General requirements: Ss_40_90_60/630 Previously coated surfaces generally
2. Existing finishes: Completely remove to expose bare wood.
3. Degraded or weathered surface wood: Take back to provide suitable substrate.
4. Degraded substrate wood: Cut out and carry out wood filler repair.
5. Exposed resinous areas and knots: Provide sound surface for good quality coated finish.

Ss_40_90_60/700 Applying coating generally

1. Application: In accordance with BS 6150, clause 9.
2. Environmental conditions : Maintain suitable temperature, humidity and air quality during application and drying.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Initial coats

- 6.1. Thickness: To suit surface porosity.
- 6.2. Application: As soon as possible on same day as preparation is completed.
- 7. Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
- 8. Cutting in: Cut in neatly.
- 9. Doors, opening windows and other moving parts: Ease before coating, and between coats.

System completion

Ss_15_30_90/820 Record of location and extent of repairs

- 1. Repair record forms
 - 1.1. Content: Details of repairs including dimensions and explanatory sketches.
 - 1.2. Copies: Two.
 - 1.3. Source of record forms: Contractor's standard.
- 2. Record drawings and images: Marked up contract drawings.

Ss_40_90_60/800 Information to be provided on completion

- 1. Submittals: Operation and maintenance information.

Ss_40_90_60/895 Verification of performance

- 1. Requirement: Check completed system and provide assurance of compliance with specified performance.
- 2. Submittals
 - 2.1. Content: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Format: Data Files
 - 2.3. Timing: At Project Completion

Ω End of System

Ss_30_40_30_80

Single layer sheet roof covering systems

Systems

Ss_30_40_30_80 Single layer sheet warm roof covering systems

1. Description: Membrane finish to lower section of cone copola.
2. System performance: Ss_30_40_30/210 Roof covering design; Ss_30_40_30/270 Durability
3. System manufacturer: ALM Enviro Lead
4. Contact details
 - 4.1. Address: ALM – Associated Lead Mills LTD
Unit B, Bingley Road, Hoddesdon, Hertfordshire, EN11 0NX
 - 4.2. Telephone: 01992 444100
 - 4.3. Web: www.associatedlead.co.uk/lead-manufacturers-suppliers/
 - 4.4. Email: sales@leadsales.co.uk
5. Product reference: Enviro Lead - Rolled Lead Sheet
6. Preparation
 - 6.1. In accordance with manufacturer's instructions
7. Thickness
 - 7.1. Code 6 (2.5-2.65mm)
8. Air and vapour control layer
 - 8.1. Not Applicable
9. System accessories: as recommended by manufacturer
10. Standard: To BS EN 12588
11. Top surface colour: Lead grey
12. Execution: Ss_30_40_30/600 Assessing suitability of substrate; Ss_30_40_30/614 Removing existing coverings or chippings; Ss_30_40_30/634 Treating cracks and gaps in substrate; Ss_30_40_30/704 Mechanical fixing of waterproof membrane; Ss_30_40_30/706 Adhesive bonding of waterproof membrane; Ss_30_40_30/710 Adhesive jointing of waterproof membrane; Ss_30_40_30/714 Securing perimeters of waterproof membrane
13. System completion: Ss_30_40_30/810 Inspection of completed work

System performance

Ss_30_40_30/210 Roof covering design

1. General
 - 1.1. Waterproof covering: Secure and weathertight.
 - 1.2. Roof surfaces: Free draining.

Ss_30_40_30/270 Durability

1. System warranty: to suit Network Rail requirements.

Execution

Ss_30_40_30/600 Assessing suitability of substrate

1. Substrate

- 1.1. Condition: Secure, clean, dry, smooth, free from frost, contaminants, voids, protrusions, organic growths, and compatible with the proposed waterproofing system.
- 1.2. Grade: To correct falls.
- 1.3. Moisture content at time of laying waterproof coverings: Must not impair integrity of roof or affect application of waterproofing.
2. Preliminary work
 - 2.1. Upstands, kerbs, box gutters, sumps, grooves, chases and expansion joints: Correctly formed.
 - 2.2. Battens, fillets, trims and anchoring plugs or strips: Securely fixed.
 - 2.3. External angles: Chamfered where required to facilitate laying of membrane or to maintain full thickness of applied coating.
 - 2.4. Movement joints: Correctly formed and free of debris.
 - 2.5. Penetrations and outlets: Fixed and located at correct height relative to substrate and free of debris.
 - 2.6. Chases: Correctly sized and cut.
 - 2.7. Outlets: Fixed and located at correct height relative to substrate.

Ss_30_40_30/614 Removing existing coverings or chippings

1. Mechanical stripping: Not permitted.
2. Areas to be removed: As per survey information.
3. Exposed substrate: Do not damage. Protect from associated work and weather.
4. Timing: Remove only substrates and coverings that will be renewed and made weathertight on same day.

Ss_30_40_30/634 Treating cracks and gaps in substrate

1. Preparation: Rake out, clean and ensure free of dust or contamination.
2. Reinstatement: Make good with sealants, mortar or repair systems. Ensure level with existing.
3. Surface condition at completion: Smooth.

Ss_30_40_30/704 Mechanical fixing of waterproof membrane

1. Membrane
 - 1.1. Setting out: Perpendicular to the deck direction.
 - 1.2. Laying: Loose, do not wrinkle or stretch.
2. Fasteners: Inserted in accordance with manufacturer's recommendations.
3. Washers, pressure plates and bars
 - 3.1. Distance from fixed edge (minimum): 10 mm.
 - 3.2. Fixing: Flush with membrane.
 - 3.3. Sheet overlaps: as manufacturer's recommendations
4. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/706 Adhesive bonding of waterproof membrane

1. Adhesive
 - 1.1. Application: Continuous even coating over whole area of roof.
 - 1.2. Surface coverage: as per manufacturer's recommendations
2. Membrane
 - 2.1. Setting out : Perpendicular to the deck direction.
 - 2.2. Laying: Do not wrinkle or stretch.

3. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/710 Adhesive jointing of waterproof membrane

1. Side and end laps
 - 1.1. Side laps (minimum): as per manufacturer's recommendations.
 - 1.2. End laps (minimum): as per manufacturer's recommendations.
 - 1.3. Preparation: Prime, clean and dry surfaces beyond full width of joint and lap.
 - 1.4. Sealing: Apply continuous even coverage of adhesive to both surfaces. Mate and roll together. Do not wrinkle or stretch membrane.
2. Seam sealant: Even bead of liquid PVC to each joint.
3. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/714 Securing perimeters of waterproof membrane

1. Upstands, edge trims, drips and kerbs: Form profiles in situ from waterproof membrane material.
2. Roof membrane
 - 2.1. Laying: Dress over perimeter profiles.
 - 2.2. Overlap beyond perimeter securement (minimum): as per manufacturer's recommendations.
 - 2.3. Sealing: as per manufacturer's recommendations.

System completion

Ss_30_40_30/810 Inspection of completed work

1. Waterproof coverings surfaces : When complete or cured, check for discontinuities.
2. Defective areas: Repair or apply additional coverings.
3. Interim and final roof inspections: Submit reports.
4. Completion certificate: Required.

Ω End of System

Ss_30_40_95_70

Reconstituted slate roofing systems

Systems

Ss_30_40_95_70 Reconstituted slate roofing systems - Replacement slate to existing town

1. Description: All existing slate to be carefully removed and reinstated. Any broken slate to be replaced like for like with reclaimed Welsh slate.
2. System performance: Ss_30_40_95/210 Local and general fixing areas of unit roofing systems
3. Underlay
 - 3.1. Material: Pr_25_57_10_94 Vapour-permeable sheets
 - 3.2. Attachment: Pr_20_29_56_85 Stainless steel nails Type A
 - 3.3. Penetrations: Cut underlay to provide a watertight fit.
4. Battens
 - 4.1. Material: Pr_20_76_88_82 Softwood roofing battens
 - 4.2. Fasteners: Pr_20_29_56_11 Carbon steel nails
5. General areas of roofing
 - 5.1. Material: Pr_25_93_72_56 Natural slates
 - 5.2. Attachment: Pr_20_29_56_15 Copper nails
6. Flashings
 - 6.1. Material: Pr_35_90_30_46 Lead flashings
 - 6.2. Attachment: Pr_20_29_56_85 Stainless steel nails
7. Execution: Ss_30_40_95/610 Installing roofing underlay; Ss_30_40_95/616 Fixing battens; Ss_30_40_95/604 Installing roofing systems
8. System completion: Ss_30_40_95/810 Verification of performance of unit roofing systems

System performance

Ss_30_40_95/210 Local and general fixing areas of unit roofing systems

1. Definitions
 - 1.1. Local areas: Bands of tiling around edges or obstructions of each plane of the roof. Calculate extent of each band in accordance with BS 5534, section 5 and Annex H.
 - 1.2. General areas: Remaining areas of roof tiling.

Products

Ac_05_50_91/340 Timber sourcing

1. Description: sourcing timber for new softwood roofing battens
2. Timber source
 - 2.1. General requirements: Obtain from well-managed forests and/ or plantations in accordance with:
 - The laws governing forest management in the producer country or countries.
 - International agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
 - 2.2. Legality and sustainability: Sustainability requirements set in UK Government Timber Procurement Policy (UKTPP) and as outlined in the supporting guidance.

- 2.3. Documentation to be submitted: Documentary evidence that confirms the timber supplier is a member of an approved certification scheme and that the timber and wood derived products delivered to site has full chain of custody.
or
Documentary evidence (which has been or can be independently verified) regarding the provenance of timber supplied.
or
Documentary evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-derived products.
3. Chain of Custody Certification scheme: In accordance with UK Government Timber Procurement Policy (UKTPP), i.e. FSC, GiB or PEFC.
4. Other evidence: UK Government Timber Procurement Policy (UKTPP), Category B evidence.
5. Timing of submissions: At tender submission, confirm that all timber and timber products can be procured in accordance with this specification.

Pr_20_29_56_11 Carbon steel nails

1. Description: for fixing timber battens to existing substrate
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Lost round head, shank nails
 - 4.2. Finish coating: Zinc Coated
 - 4.3. Length: 60mm
 - 4.4. Diameter: 2.5mm
5. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_29_56_15 Copper nails

1. Description: Copper Nails for fixing new slate to timber battens
2. Manufacturer: Contractor's choice
3. Standard: To BS EN 1202-2.
4. Form: Extra large head felt nails - 10mm round head
5. Size
 - 5.1. Length: 50mm
 - 5.2. Shank diameter: 3mm
6. Roves: To suit shank diameter.
7. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_29_56_85 Stainless steel nails

1. Description: Stainless steel staples for fixing lead roof flashings
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Ring shank flat head nails
5. Stainless steel
 - 5.1. Standard: To BS EN ISO 3506-1.
 - 5.2. Grade: A2.
6. Size

- 6.1. Length: to suit flashing application in accordance with LSTA guidelines
- 6.2. Diameter: to suit flashing application in accordance with LSTA guidelines
- 7. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_29_56_85 Stainless steel nails Type A

- 1. Description: Stainless steel fixings for roof breather membrane.
- 2. Manufacturer: Contractor's choice
- 3. Standard: To BS 1202-1.
- 4. Nail details
 - 4.1. Form: Large head felt nails to self seal penetration.
- 5. Stainless steel
 - 5.1. Standard: To BS EN ISO 3506-1.
 - 5.2. Grade: A2.
- 6. Size
 - 6.1. Length: 25mm
 - 6.2. Diameter: 10mm min head diameter.
- 7. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_76_88_82 Softwood roofing battens

- 1. Description: secured to existing substrate
- 2. General requirements: Ac_05_50_91/340 Timber sourcing
- 3. Supplied by: Contractor's choice
- 4. Standard: In accordance with BS 5534.
- 5. Timber
 - 5.1. Species: In accordance with BS 5534, clause 4.11.1.
 - 5.2. Permissible characteristics and defects: Not to exceed limits in BS 5534, Annex D. Planed, free from wane, pitch pockets, decay and insect attack.
 - 5.3. Grading: Fully factory pre-graded in accordance with BS 5534.
- 6. Moisture content at time of fixing and covering (maximum): 19%.
- 7. Treatment: As recommended by waterproof covering manufacturer.
- 8. Size
 - 8.1. Battens: 50 x 25 mm.

Pr_25_57_10_94 Vapour-permeable sheets

- 1. Description: Replacement breathable membrane to roof.
- 2. Manufacturer: DuPont™ Tyvek®
- 3. Contact details
 - 3.1. Address:
470 Bath Road,
Arno's Vale,
Bristol
Avon
United Kingdom
BS4 3AP
 - 3.2. Telephone: +44 (0) 117 452 9050
 - 3.3. Web: www.construction.tyvek.co.uk
 - 3.4. Email: tyvek.construction@dupont.com

4. Product reference: Tyvek® Supro – Breather Roof Underlay
5. Standard: To BS EN 13859-2.
6. Performance characteristics: Water resistant. Vapour permeable.
7. Class (minimum): W1.
8. Material: Polypropylene.
9. Form: Spun-bonded.
10. Third-party certification: British Board of Agrément (BBA) Certificate.
11. Weight (minimum): 145 g/m².
12. Thickness (minimum): 0.45 mm.
13. Accessories: Tyvek® Double Sided Acrylic Tape for jointing.
Tyvek® 2060B Tape for securing windows and chimneys.
Tyvek® Butyl Tape for sealing nays penetrations.
14. Water vapour permeability: ≤935 g/m² per day.
15. Tear resistance (to BS EN 12310-1): 180 N.
16. Flammability (to DIN 4102): B2.
17. Execution: Pr_25_57_10/620 Installing breather membranes

Pr_25_93_72_56 Natural slates

1. Description: New slate to existing roof. Allow for existing slate to be carefully removed. Any damage or missing slate to be replaced with new / reclaimed Welsh Slate.
2. Supplied by: SIGA Natural Slate
3. Contact details
 - 3.1. Address: Harding Way
St Ives
Cambridgeshire
PE27 3YJ
 - 3.2. Telephone: +44 (0)1480 466777
 - 3.3. Web: www.sigaslate.co.uk
 - 3.4. Email: info@sigaslate.co.uk
4. Product reference: Natural Slate SIGA 120
5. Slate type
 - 5.1. Source: Welsh
 - 5.2. Colour: Blue/Grey.
6. Standards
 - 6.1. Product specification: To BS EN 12326-1:2014, BS 5534, BS 8000.
7. Properties
 - 7.1. Water absorption: 0.3% (to BS EN 12326-1:2014).
 - 7.2. Thermal cycle test: T1 (to BS EN 12326-1:2014).
 - 7.3. Carbonate content: Less than 20%.
 - 7.4. Sulfur dioxide exposure test: Code S1.
8. Reaction to fire: Class A1 (to BS EN 12326-1:2014).
9. Execution: Pr_25_93_72/640 Installing natural roofing slates

Pr_35_90_30_46 Lead flashings

1. Description: Lead flashings to roof
2. Standard: Carried out in full accordance with LSTA guidelines and recommendations.

3. Material: Lead.
4. Item: As indicated on detail drawings.
5. Form of delivery: Roll or sheet for site forming.
6. Size
 - 6.1. Thickness (minimum): Code 6,7 or 8 in accordance with LSTA guidelines for listed buildings / structures.
 - 6.2. Width: as required to suit application
7. Fixing: Lapped joints.
Tucked and wedged into masonry joints.
Welded into existing covering.
Pr_20_29_56_85 Stainless steel nails
All to suit relevant application as outlined on drawing 006674.00-RBA-01-R1-D-C-20001
8. Thermal movement: Joints and fixings must incorporate measures to avoid warping or damage from thermal movement, and maintain the weather resistance of the connection.
9. Support: Allow for softwood framing support as required in accordance with detail drawings.
10. Finish: Self-finish.

Execution

Pr_20_29_56/615 Fixing with nails

1. Fastener spacing: to suit minimum required for application.
2. Finished level of nail heads
 - 2.1. Exposed: Flush with surface.
 - 2.2. Punched (holes filled or stopped): Sink minimum 2 mm below surface.

Pr_25_57_10/620 Installing breather membranes

1. Installation sequence: Fix membrane neatly to provide a complete barrier to water, snow and wind blown dust. Install from lowest level upwards so that horizontal overlaps shed water away from substrate. Report occurrence of damage to membrane and repair before installing cladding
2. Bottom edges: Extend membrane 25 mm (minimum) below lowest rafter end.
3. Continuity
 - 3.1. Criteria: No breaks. Minimise number of joints. Bond with tape where required.
 - 3.2. Horizontal laps: 100 mm minimum. Achieve full bond.
 - 3.3. Vertical laps: 150 mm minimum and staggered with respect to horizontal laps. Achieve full bond.
 - 3.4. Penetrations and abutments: Attach to breather membrane with tape. Achieve full bond.
 - 3.5. Openings: Overlap flashings at head and extend membrane into reveals.
 - 3.6. Junctions at flashings, sills, gutters, etc.: Overlap and allow free drainage to exterior.
4. Method of fixing
 - 4.1. Reinforcement: Use reinforcing tape to strengthen membrane at fixing points and to identify stud locations.
 - 4.2. Fastener centres (maximum): 150 mm centres at frame or stud positions and around openings, at top and bottom of panels and at membrane joints.
5. Dpcs: Trim all projections flush with face of wall to avoid snagging breather membrane.
6. Repairs: Fix lapped patch of breather membrane material with continuous band of tape on edges. Report occurrence and complete repairs before installing external cladding.

Pr_25_93_72/640 Installing natural roofing slates

1. Head lap (minimum): 72 mm in accordance with SIGA recommendations.
2. Side lap: In accordance with BS 5534, clause 5.5.4 to suit slate size, roof pitch and exposure.
3. Fixing: Two nails each slate.

Ss_30_40_95/604 Installing roofing systems

1. Cut tiles or slates: Cut only where necessary, to give straight, clean edges.
2. Flashings: Fix with or immediately after tiling or slating. Form neatly.
3. Gutters: Keep free of debris.

Ss_30_40_95/610 Installing roofing underlay

1. Direction: Parallel to eaves.
2. Head lap (minimum): 75 mm.
3. Position: Below battens.
4. Ventilation paths: Do not obstruct.

Ss_30_40_95/616 Fixing battens

1. Setting out: Align parallel to ridge in straight horizontal lines to gauge of tiles or slates. Align on adjacent areas.
2. Batten length (minimum): Sufficient to span over three supports.
3. Joints in length: Square cut. Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
4. Additional battens: Provide where unsupported laps in underlay occur between battens.
5. Fixing: Each batten to each support. Splay fix at joints in length.

System completion

Ss_30_40_95/810 Verification of performance of unit roofing systems

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

Ω End of System

Ss_30_75_50_45

Lead sheet gutter lining systems

Systems

Ss_30_75_50_45 Lead sheet gutter lining systems

1. Description: Lead gutters around perimeter of roof adjacent existing parapet, and internal valley gutters.
2. System performance: Ss_30_75_50/220 Design of lead sheet roof gutter lining systems; Ss_30_75_50/255 Durability; Ss_30_75_50/260 Aesthetic performance; Ss_30_75_50/290 Compliance with performance requirements
3. System manufacturer: Submit proposals
4. Substrate
 - 4.1. Material: Pr_25_71_97_50 Marine plywoods
 - 4.2. Carrier: Pr_20_76_88_82 Softwood roofing battens
5. Substrate preparation
 - 5.1. Requirements: Replace substrate.
 - 5.2. Fasteners: Annular ringed shank copper nails.
6. Sheet underlay
 - 6.1. Material: Pr_25_57_10_94 Vapour-permeable sheets
 - 6.2. Fasteners: Pr_20_29_56_85 Stainless steel nails Type A
 - 6.3. Joint treatment: as per manufacturer's recommendations.
7. Timber cores for batten roll joints
 - 7.1. Core: Pr_20_76_88_82 Softwood roofing battens Type A - For Lead Rolls
 - 7.2. Fasteners: Pr_20_29_56_11 Carbon steel nails
8. Lead
 - 8.1. Type: Pr_25_71_51_47 Lead rolled sheets
9. Joints
 - 9.1. Cross joints
 - 9.1.1. Generally: Drips without splash laps.
 - 9.2. Joints in direction of fall: Batten rolls with splash lap.
 - 9.3. Joints with roof covering: Single lock welts.
 - 9.4. Fasteners: Pr_20_29_56_85 Stainless steel nails
 - 9.5. Clips: Ss_30_75_50/520 Site-made lead clips
10. Fixing to joints and chases: As per existing.
11. Pointing to joints and chases: As per existing.
12. Outlets: As per existing.
13. Execution: Ss_30_75_50/615 Suitability of substrates; Ss_30_75_50/610 Layout; Ss_30_75_50/620 Making good existing substrates; Ss_30_75_50/625 Preparation of existing timber substrates; Ss_30_75_50/660 Laying valley gutter lining systems to slate and tile roofs; Ss_30_75_50/765 Installing clips; Ss_30_75_50/735 Forming batten roll joints generally
14. System completion: Ss_30_75_50/810 Cleaning and maintenance of metal gutter lining systems; Ss_30_75_50/820 Operation and maintenance manual

System performance

Ss_30_75_50/220 Design of lead sheet roof gutter lining systems

1. Requirement: Complete the design of the gutter lining system, including the ventilated cavity (and its continuity through to the roofing system), carriers, substrate and expansion joints, outlets and overflows
2. Standards: to BS EN 14783, BS 6915 and LSTA Rolled lead sheet - the complete manual.
3. Reference material: Copy of LSTA Manual: Rolled lead sheet - the complete manual to be available on site at all times.

Ss_30_75_50/255 Durability

1. Design life duration (minimum): 25 years.
2. Electrolytic corrosion: Isolate dissimilar metals.

Ss_30_75_50/260 Aesthetic performance

1. Requirements
 - 1.1. Appearance of system: Regular, true to line and plane with satisfactory fit at junctions.
 - 1.2. Appearance of metal: No marks to visible faces.

Ss_30_75_50/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method: Submit evidence of required durability.
3. Testing authority: Submit details.
4. Timing of submittals: Before commencing of work on site.

Products

Ac_05_50_91/340 Timber sourcing

1. Description: sourcing timber for new softwood roofing battens
2. Timber source
 - 2.1. General requirements: Obtain from well-managed forests and/ or plantations in accordance with:
 - The laws governing forest management in the producer country or countries.
 - International agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
 - 2.2. Legality and sustainability: Sustainability requirements set in UK Government Timber Procurement Policy (UKTPP) and as outlined in the supporting guidance.
 - 2.3. Documentation to be submitted: Documentary evidence that confirms the timber supplier is a member of an approved certification scheme and that the timber and wood derived products delivered to site has full chain of custody.
 - or
 - Documentary evidence (which has been or can be independently verified) regarding the provenance of timber supplied.
 - or
 - Documentary evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-derived products.
3. Chain of Custody Certification scheme: In accordance with UK Government Timber Procurement Policy (UKTPP), i.e. FSC, GiB or PEFC.
4. Other evidence: UK Government Timber Procurement Policy (UKTPP), Category B evidence.

5. Timing of submissions: At tender submission, confirm that all timber and timber products can be procured in accordance with this specification.

Pr_20_29_56_11 Carbon steel nails

1. Description: for fixing timber battens to existing substrate
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Lost round head, shank nails
 - 4.2. Finish coating: Zinc Coated
 - 4.3. Length: 60mm
 - 4.4. Diameter: 2.5mm
5. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_29_56_85 Stainless steel nails

1. Description: Stainless steel staples for fixing lead roof flashings
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Ring shank flat head nails
5. Stainless steel
 - 5.1. Standard: To BS EN ISO 3506-1.
 - 5.2. Grade: A2.
6. Size
 - 6.1. Length: to suit flashing application in accordance with LSTA guidelines
 - 6.2. Diameter: to suit flashing application in accordance with LSTA guidelines
7. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_29_56_85 Stainless steel nails Type A

1. Description: Stainless steel fixings for roof breather membrane.
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Large head felt nails to self seal penetration.
5. Stainless steel
 - 5.1. Standard: To BS EN ISO 3506-1.
 - 5.2. Grade: A2.
6. Size
 - 6.1. Length: 25mm
 - 6.2. Diameter: 10mm min head diameter.
7. Execution: Pr_20_29_56/615 Fixing with nails

Pr_20_76_88_82 Softwood roofing battens

1. Description: secured to existing substrate
2. General requirements: Ac_05_50_91/340 Timber sourcing

3. Supplied by: Contractor's choice
4. Standard: In accordance with BS 5534.
5. Timber
 - 5.1. Species: In accordance with BS 5534, clause 4.11.1.
 - 5.2. Permissible characteristics and defects: Not to exceed limits in BS 5534, Annex D. Planed, free from wane, pitch pockets, decay and insect attack.
 - 5.3. Grading: Fully factory pre-graded in accordance with BS 5534.
6. Moisture content at time of fixing and covering (maximum): 19%.
7. Treatment: As recommended by waterproof covering manufacturer.
8. Size
 - 8.1. Battens: 50 x 25 mm.

Pr_20_76_88_82 Softwood roofing battens Type A - For Lead Rolls

1. Description: Profiled softwood battens for lead rolled batten
2. General requirements: Ac_05_50_91/340 Timber sourcing
3. Supplied by: Contractor's choice
4. Standard: In accordance with BS 5534.
5. Timber
 - 5.1. Species: In accordance with BS 5534, clause 4.11.1.
 - 5.2. Permissible characteristics and defects: Planed, free from wane, pitch pockets, decay and insect attack. Not to exceed limits in BS 5534, Annex D.
 - 5.3. Grading: Factory pre-graded with site check for grading to take account of knots, wane, fissures and splits.
6. Moisture content at time of fixing and covering (maximum): 19%.
7. Treatment: As recommended by waterproof covering manufacturer.
8. Size
 - 8.1. Battens: To suit existing dimensions and profile.

Pr_25_57_10_94 Vapour-permeable sheets

1. Description: Replacement breathable membrane to roof.
2. Manufacturer: DuPont™ Tyvek®
3. Contact details
 - 3.1. Address:
470 Bath Road,
Arno's Vale,
Bristol
Avon
United Kingdom
BS4 3AP
 - 3.2. Telephone: +44 (0) 117 452 9050
 - 3.3. Web: www.construction.tyvek.co.uk
 - 3.4. Email: tyvek.construction@dupont.com
4. Product reference: Tyvek® Supro – Breather Roof Underlay
5. Standard: To BS EN 13859-2.
6. Performance characteristics: Water resistant. Vapour permeable.
7. Class (minimum): W1.

8. Material: Polypropylene.
9. Form: Spun-bonded.
10. Third-party certification: British Board of Agrément (BBA) Certificate.
11. Weight (minimum): 145 g/m².
12. Thickness (minimum): 0.45 mm.
13. Accessories: Tyvek® Double Sided Acrylic Tape for jointing.
Tyvek® 2060B Tape for securing windows and chimneys.
Tyvek® Butyl Tape for sealing any penetrations.
14. Water vapour permeability: ≤935 g/m² per day.
15. Tear resistance (to BS EN 12310-1): 180 N.
16. Flammability (to DIN 4102): B2.
17. Execution: Pr_25_57_10/620 Installing breather membranes

Pr_25_71_51_47 Lead rolled sheets

1. Description: Lead Rolled Sheets for Gutter Systems.
2. Manufacturer: Contractor's choice
3. Standard
 - 3.1. Sheet roofing products: To BS EN 14783.
 - 3.2. Material: Lead
4. Identification: CE mark and label to show thickness or code, weight, type and data all as required by BS EN 14783
5. Thickness: Code 6, 7 or 8 in accordance with LSTA guidelines for listed buildings.
6. Reaction to fire
 - 6.1. External face: BS EN 13501-1, *Class A2-s1, d0*.
 - 6.2. Internal face: BS EN 13501-1, *Class A2-s1, d0*.

Pr_25_71_97_50 Marine plywoods

1. Description: Marine grade plywood forming replacement gutters around roof perimeter and valley gutters.
2. General requirements: Ac_05_50_91/340 Timber sourcing
3. Manufacturer: Contractor's choice
4. Supplied by: Contractor.
5. Standard: To BS EN 13986.
6. Third-party certification: UKAS-accredited third-party testing organization. European cooperation for accreditation (EA) member-accredited third-party testing organization.
7. Class: Standard.
8. Edges: Square.
9. Thickness: to suit existing.
10. Preservative treatment: To Wood Protection Association (WPA) Code of practice - industrial wood preservation – Commodity Specification C11, to provide a 30-year service life.
11. Execution: Pr_25_71_97/620 Installing wood-based panels; Pr_25_71_97/625 Moisture content of supports; Pr_25_71_97/630 Panel edge supports; Pr_25_71_97/635 Treated timber

Ss_30_75_50/520 Site-made lead clips

1. Metal: Same thickness as that being secured.
2. Dimensions
 - 2.1. Width: 50 mm, where not continuous.

- 2.2. Length: To suit detail.

Execution

Pr_20_29_56/615 Fixing with nails

1. Fastener spacing: to suit minimum required for application.
2. Finished level of nail heads
 - 2.1. Exposed: Flush with surface.
 - 2.2. Punched (holes filled or stopped): Sink minimum 2 mm below surface.

Pr_25_57_10/620 Installing breather membranes

1. Installation sequence: Fix membrane neatly to provide a complete barrier to water, snow and wind blown dust. Install from lowest level upwards so that horizontal overlaps shed water away from substrate. Report occurrence of damage to membrane and repair before installing cladding
2. Bottom edges: Extend membrane 25 mm (minimum) below lowest rafter end.
3. Continuity
 - 3.1. Criteria: No breaks. Minimise number of joints. Bond with tape where required.
 - 3.2. Horizontal laps: 100 mm minimum. Achieve full bond.
 - 3.3. Vertical laps: 150 mm minimum and staggered with respect to horizontal laps. Achieve full bond.
 - 3.4. Penetrations and abutments: Attach to breather membrane with tape. Achieve full bond.
 - 3.5. Openings: Overlap flashings at head and extend membrane into reveals.
 - 3.6. Junctions at flashings, sills, gutters, etc.: Overlap and allow free drainage to exterior.
4. Method of fixing
 - 4.1. Reinforcement: Use reinforcing tape to strengthen membrane at fixing points and to identify stud locations.
 - 4.2. Fastener centres (maximum): 150 mm centres at frame or stud positions and around openings, at top and bottom of panels and at membrane joints.
5. Dpcs: Trim all projections flush with face of wall to avoid snagging breather membrane.
6. Repairs: Fix lapped patch of breather membrane material with continuous band of tape on edges. Report occurrence and complete repairs before installing external cladding.

Pr_25_71_97/620 Installing wood-based panels

1. Number of layers: Single layer.
2. Setting out of long edges: As required for optimum fastening support.
3. Gap between adjacent boards: 1–2 mm.
4. Fixing centres (maximum)
 - 4.1. General: Boards and sheets to be fixed securely to each support without distortion and true to line and level. Fixings to be evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints
 - 4.2. Around board edges: 100 mm.
 - 4.3. Along intermediate supports: 150 mm.
5. Fixing distance from edges (minimum): Sufficient to prevent damage.
6. Joints: Butted.

Pr_25_71_97/625 Moisture content of supports

1. Moisture content
 - 1.1. Final: 12–14%

- 1.2. At time of fixing boards: 18% maximum
2. Test regime and equipment: Moisture meter, prior to installation.
3. Test results: Submit record of tests and results.

Pr_25_71_97/630 Panel edge supports

1. Provision: In accordance with board manufacturer's recommendations.
2. Tongued-and-grooved jointed rigid board areas: To unsupported perimeter edges.
3. Butt-jointed rigid board areas: To unsupported edges.
4. Size (minimum): 50 mm wide and of adequate thickness.
5. Quality: As for adjacent timber supports.
6. Treatment: As for adjacent timber supports.

Pr_25_71_97/635 Treated timber

1. Surfaces exposed by minor cutting and drilling: Treat with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

Ss_30_75_50/610 Layout

1. Setting out of joints: to minimise cuts and joints.

Ss_30_75_50/615 Suitability of substrates

1. Condition: Dry and free of dust, debris, grease and other deleterious matter.
2. Defective substrates: Give notice.

Ss_30_75_50/620 Making good existing substrates

1. Efflorescence, laitance, dirt and other loose material: Remove without damaging substrate.
2. Organic growth: Remove without damaging substrate.
3. Deposits of oil, grease, formwork release agents and other surface residues: Remove without damaging substrate.
4. Adhesive residues: Remove without damaging substrate.

Ss_30_75_50/625 Preparation of existing timber substrates

1. Remedial work for sound boards: Adjust boards to level and securely fix. Punch in protruding fasteners and plane or sand to achieve an even surface.
2. Moisture content
 - 2.1. Moisture content at time of covering (maximum): 22%.
 - 2.2. Moisture content greater than 16%: Give notice for lead work to allow for pre-treatment.

Ss_30_75_50/630 Metalwork generally

1. General requirements: Ss_30_75_50/690 Forming details in leadwork by bossing and leadwelding
2. Fixing: Support fully. Install to resist wind uplift and to accommodate thermal movement, without distortion or stress. Fix adequately to provide a secure, free draining and completely weathertight installation.
3. Folding: To give straight, regular and tight bends, leaving panels free from ripples, kinks, buckling and cracks.
4. Preforming: Measure, mark, cut and form metal before assembly wherever possible.
5. Burrs and sharp edges: Remove or fold under as work proceeds.
6. Hot work: Soldering, brazing, welding and leadburning are permitted in situ, subject to completion of a 'hot work permit' form and compliance with its requirements.

Ss_30_75_50/645 Leadwork generally

1. General requirements: Ss_30_75_50/630 Metalwork generally
2. Standards: In accordance with BS 6915 and in accordance with Lead Sheet Association Rolled lead sheet - the complete manual.

Ss_30_75_50/660 Laying valley gutter lining systems to slate and tile roofs

1. General requirements: Ss_30_75_50/645 Leadwork generally
2. Generally: Preform wherever possible.
3. Laying: Over and beyond tilting fillets.
4. Clear width (minimum): 200 mm.
5. Underlap (minimum): In accordance with LSTA Guidelines
6. Lengths (maximum): In accordance with LSTA Guidelines
7. Fixing: Fold edges and clip at 450mm (maximum) centres. Nail top edge of each sheet. Fold or dress bottom end neatly into eaves gutter.

Ss_30_75_50/680 Forming details generally

1. General requirements: Ss_30_75_50/630 Metalwork generally
2. Folds and welts: Form without thinning, cutting or splitting the strip or sheet
3. Thermal movement: Form details with appropriate allowance for movement, without impairment of structural fixing at full expansion or contraction.

Ss_30_75_50/690 Forming details in leadwork by bossing and leadwelding

1. General requirements: Ss_30_75_50/645 Leadwork generally; Ss_30_75_50/630 Metalwork generally; Ss_30_75_50/680 Forming details generally
2. Permitted methods
 - 2.1. Bossing: In accordance with LSTA Guidelines
 - 2.2. Leadwelding: In accordance with LSTA Guidelines
3. Leadwelded seams
 - 3.1. Generally: Form neatly and consistently.
 - 3.2. Seams: Do not undercut or reduce sheet thickness.
 - 3.3. Filler strips: Of the same composition as the sheets being joined.
 - 3.4. Butt joints: Form to a thickness one third more than the sheets being joined.
 - 3.5. Lap joints: Form with 25 mm laps and two fasteners to the edge of the overlap.

Ss_30_75_50/735 Forming batten roll joints generally

1. General requirements: Ss_30_75_50/645 Leadwork generally
2. Fixing timber core to substrate: Screw at 300 mm (maximum) centres.
3. Metal sheet
 - 3.1. Generally: Form strip or sheet each side of core.
 - 3.2. Joint allowances: 3 mm gap for thermal movement and upstands to 10 mm above height of core.
 - 3.3. Clip centres (maximum): 400 mm.
4. Fixing
 - 4.1. Securing against slippage: Notch strip or sheet at clip positions recommended by the manufacturer.
 - 4.2. Fixing to cappings: Single lock welt clips to upstands.

5. Cappings

- 5.1. Lengths (maximum): 1.25 m.
- 5.2. Fixing: Single lock welt end to end joints. Overlap each capping in length and secure with capping clip.

Ss_30_75_50/765 Installing clips

- 1. Fixings
 - 1.1. Batten roll clips: 1 fixing per clip.
 - 1.2. Batten roll capping clips: 2 fixings per clip.

System completion

Ss_30_75_50/810 Cleaning and maintenance of metal gutter lining systems

- 1. Cleaning materials and methods: Avoid the use of chemicals which may attack or damage sheet metal.

Ss_30_75_50/820 Operation and maintenance manual

- 1. Recommended maintenance schedule: Submit.
- 2. Information to be included: Recommendations for safe dismantling and recycling or disposal of products.
- 3. Timing: On completion of flashing or weathering systems.

Ω End of System

Pr_20_31_53_11 Cement-gauged mortars

Products

Pr_20_31_53_11 Cement-gauged mortars

1. Description: Mortar to areas of new brickwork
2. Manufacturer: Contractor's choice
3. Standard: To BS EN 998-2.
4. Mortar type: Ready-to-use cement:sand.
5. Mix: 1:3 (cement:sand).
6. Admixture: Styrene butadiene rubber (SBR).
7. Colour: Match existing.
8. Reaction to fire classification: Class A1.
9. Additional requirements: Durability: freeze/ thaw resistance: suitable for exposed external use below dpc.
10. Execution: Pr_20_31_53/615 Height of lifts in brick and block walling using cement-gauged mortar or hydraulic lime mortar

Execution

Pr_20_31_53/615 Height of lifts in brick and block walling using cement-gauged mortar or hydraulic lime mortar

1. Quoins and advance works: Rack back.
2. Lift height (maximum): 1.2 m above any other part of work at any time.
3. Daily lift height (maximum): 1.5 m for any one leaf.

Ω End of Product

Pr_20_31_53_47

Lightweight masonry mortars

Products

Pr_20_31_53_47 Lightweight masonry mortars

1. Description: Pointing to areas of reclaimed imperial facing bricks
2. Manufacturer: Contractor's choice
3. Standard: To BS EN 998-2.
4. Mortar type: Premixed.
5. Mix: M5.
6. Colour: Match existing.
7. Reaction to fire classification: Class A1.
8. Additional requirements: Durability: freeze/ thaw resistance: suitable for exposed external use below dpc.
9. Execution: Pr_20_31_53/610 Testing fresh mortar cement content; Pr_20_31_53/615 Height of lifts in brick and block walling using cement-gauged mortar or hydraulic lime mortar

Execution

Pr_20_31_53/610 Testing fresh mortar cement content

1. Test method: BREMORTEST in accordance with Building Research Establishment Information Paper 8/89.
2. Mortar test specimens: Pr_20_31_53_11 Cement-gauged mortars
3. Results: Submit

Pr_20_31_53/615 Height of lifts in brick and block walling using cement-gauged mortar or hydraulic lime mortar

1. Quoins and advance works: Rack back.
2. Lift height (maximum): 1.2 m above any other part of work at any time.
3. Daily lift height (maximum): 1.5 m for any one leaf.

Ω End of Product

Pr_20_31_53_54

Mortar repair mortar

Products

Pr_20_31_53_54 Mortar repair mortar

1. Description: Mortar joint to reinstated masonry walls.
2. Manufacturer: Contractor's choice
3. Standard: To BS EN 998-2.
4. Mortar type: Cement-based.
5. Colour: To match existing.
6. Execution: Pr_20_31_53/610 Testing fresh mortar cement content

Execution

Pr_20_31_53/610 Testing fresh mortar cement content

1. Test method: BREMORTEST in accordance with Building Research Establishment Information Paper 8/89.
2. Mortar test specimens: Pr_20_31_53_11Cement-gauged mortars
3. Results: Submit

Ω End of Product

Pr_20_93_52_71

Reclaimed clay bricks

Products

Pr_20_93_52_71 Reclaimed clay bricks

1. Description: All vegetation to be removed from existing masonry walls. Roots destroyed with an approved Herbicide. All walls, parapets, and chimney with loose mortar to be raked out to a depth of 25mm.
All badly delaminating masonry to be removed. Existing masonry to be suitably propped during removal and reinstatement.
Replacement red brick to parapets, chimneys and areas of existing facade as detailed on drawing 006674.00-RBA-01-R1-D-C-20001.
Allow for 60 to 70% of Parapet and Chimney brickwork, 50 to 60% of wall above the eaves; and 80-90 % of existing gable. All % are approximate and must be quantified on site prior to construction by a qualified brick specialist.
2. Supplied by: Submit proposals
3. Brick description: Reclaimed red imperial smooth faced brick, colour to best match existing bricks.
4. Source: locally sourced to ensure likeness
5. Brick type: Imperial brick, red, smooth to match existing.
6. Size: Match existing.
7. Condition: Sound, free from mortar and deleterious matter.
8. Execution: Pr_20_93_52/625 Brickwork and blockwork appearance; Pr_20_93_52/630 Brickwork and blockwork bond; Pr_20_93_52/635 Brickwork and blockwork pointing; Pr_20_93_52/645 Coursing brickwork; Pr_20_93_52/655 Facing brickwork and blockwork joints; Pr_20_93_52/690 Laying brick and block masonry units generally

Execution

Pr_20_93_52/625 Brickwork and blockwork appearance

1. Brick/ block selection: Do not use units with damaged faces or arrises.
2. Cut masonry units: Where cut faces or edges are exposed, cut with table masonry saw.
3. Quality control: Lay masonry units to match relevant reference panels.
4. Setting out: To produce satisfactory junctions and joints with built-in features and components.
5. Coursing: Evenly spaced using gauge rods.
6. Lifts: Complete in one operation.

Pr_20_93_52/630 Brickwork and blockwork bond

1. Bond type: Flemish - to match existing.

Pr_20_93_52/635 Brickwork and blockwork pointing

1. Joint preparation: Remove debris. Dampen surface.
2. Profile: To match existing.

Pr_20_93_52/645 Coursing brickwork

1. Gauge: Line up with existing brick courses.

Pr_20_93_52/655 Facing brickwork and blockwork joints

1. Profile: To match existing

Pr_20_93_52/690 Laying brick and block masonry units generally

1. Mortar joints: Lay units on a full bed. Fill vertical joints and voids.
2. Thin mortar joints
 - 2.1. Generally: Lay blocks on a full bed. Fill vertical joints.
 - 2.2. Clay block vertical joints: Interlock without mortar.
3. Joint appearance: Neat and consistent.
4. Cleanliness
 - 4.1. Facework: Keep clean.
 - 4.2. Mortar on facework: Removed.
 - 4.3. Removal of marks and stains: Rubbing and other abrasive or chemical cleaning methods not permitted.

Ω End of Product

Pr_25_71_33_97 Wired glass sheets

Products

Pr_25_71_33_97 Wired glass sheets

1. Description: Existing georgian wired glazing to roof windows as indicated on drawing 006674.00-RBA-01-R1-D-C-20001.
2. Worked finish
 - 2.1. Method: Glazing to be cleaned internally and externally on completion of all timber repair works to main glazing frames.
All gaps between glazing and lead flashings to be suitably sealed with exterior grade Pr_30_31_76_85 Structural sealant glazing weather sealants

Pr_30_31_76_85 Structural sealant glazing weather sealants

1. Description: Exterior grade structural silicone sealant to existing glazing
2. Manufacturer: **Dow Chemical Company Ltd.**
5 Oakwater Avenue,
Cheadle Royal Business Park,
Cheadle, SK8 3SR
United Kingdom
3. Standard: To BS EN ISO 11600.
4. Third-party certification: Third-party-accredited by UKAS-approved or recognized body.
5. Sealant type: DOWSIL™ 791 Silicone Weatherproofing Sealant
6. Class: Conforms to ISO 11600-F&G-25LM
7. Colour: Clear
8. Execution: Pr_30_31_76/620 Joint preparation for sealant application; Pr_30_31_76/610 Suitability of joints for sealant application
9. Verification
 - 9.1. Submittals: Sample.
 - 9.2. Timing: Prior to installation.

Execution

Pr_30_31_76/610 Suitability of joints for sealant application

1. Joint dimensions: Within limits specified for the sealant.
2. Substrate quality: Surfaces regular, undamaged and stable.

Pr_30_31_76/620 Joint preparation for sealant application

1. Surfaces to which sealant must adhere: Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
2. Cleaning: Use materials and methods recommended by sealant manufacturer.
3. Vulnerable surfaces adjacent to joints: Mask. Do not stain or smear with primer or sealant.

Ω End of Product

Pr_35_90_30_46 Lead Cupola Flashings

Products

Pr_20_29_56_85 Stainless steel nails Type B

1. Description: Stainless steel staples for fixing lead roof flashings
2. Manufacturer: Contractor's choice
3. Standard: To BS 1202-1.
4. Nail details
 - 4.1. Form: Ring shank flat head nails
5. Stainless steel
 - 5.1. Standard: To BS EN ISO 3506-1.
 - 5.2. Grade: A2.
6. Size
 - 6.1. Length: to suit flashing application in accordance with LSTA guidelines
 - 6.2. Diameter: to suit flashing application in accordance with LSTA guidelines
7. Execution: Pr_20_29_56/615 Fixing with nails Type A

Pr_35_90_30_46 Lead flashings Type A

1. Description: Lead flashings to Cupola
2. Standard: Carried out in full accordance with LSTA guidelines and recommendations.
3. Material: Lead.
4. Item: As indicated on detail drawings.
5. Form of delivery: Roll or sheet for site forming.
6. Size
 - 6.1. Thickness (minimum): Code 6,7 or 8 in accordance with LSTA guidelines for listed buildings / structures.
 - 6.2. Width: as required to suit application
7. Fixing: Lapped joints and secured back to substrate in accordance with LSRA guidelines and recommendations.
Pr_20_29_56_85 Stainless steel nails Type B
All to suit relevant application as outlined on drawing 006674.00-RBA-01-R1-D-C-20001
8. Thermal movement: Joints and fixings must incorporate measures to avoid warping or damage from thermal movement, and maintain the weather resistance of the connection.
9. Support: Allow for softwood framing support as required in accordance with detail drawings.
10. Finish: Self-finish.

Execution

Pr_20_29_56/615 Fixing with nails Type A

1. Fastener spacing: to suit minimum required for application.
2. Finished level of nail heads
 - 2.1. Exposed: Flush with surface.
 - 2.2. Punched (holes filled or stopped): Sink minimum 2 mm below surface.

Ω End of Product



Specification created using NBS Chorus