NBS Specification

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Revision:

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Contents

C90
Alterations - spot items

General

110A Refurbishment and Demolition Asbestos Survey

1. Contractor to co-ordinate a Refurbish and Demolition Asbestos survey and report from a competent specialist prior to works commencing.
2. All opening up to be carried out by competent tradespeople rather than asbestos surveyor.

110B Refurbishment of Timber Windows and Installation of Slimline Double Glazing Units

1. Location of spot item descriptions: Refer to drawings and schedules.
2. Description of works:
   - 2.1. Ease stuck sashes.
   - 2.2. Carry out timber repairs in European Oak. Allow for 10% window repairs plus new timber cills throughout.
   - 2.3. Replace worn and broken sash cords with rope the same diameter as old.
   - 2.4. Clear out debris from the weight pockets.
   - 2.5. Reglaze top and bottom sashes with Slim Glass slim lite double glazing, increasing check sizes as necessary. Re-putty, allow to dry, and paint.
     Glazing details: Slim Glass slim lite double glazing unit.
     Manufacturer: Slim Glass Ltd.
     Unit 1
     Telford close
     Norwich
     Norfolk
     01603 908 888
     sales@slim-glass.co.uk
     Product details: Outer pane 4mm toughened glass, 8mm argon or krypton gas filled cavity, inner pane 4mm toughened glass with low-emissivity coating to cavity side, with heritage super spacer bar.
     Beading: External putty, to be painted.
   - 2.6. Router checks around window perimeter to take Reddiseals Reddipile Brush seals along top, bottom and sides of sash.
   - 2.7. Rebalance weights, allowing for new lead weights to compensate for increased window sash .
   - 2.8. Paint externally as M60/130C. Remove ironmongery. Remove sashes from frame before painting. Clean down painted wood with non-alkali soap and water. Rub down smooth. Remove only loose excess layers and otherwise defective paint. Prime any bare wood. Do not paint the parts of the runners that are hidden by the sashes when they are closed.
   - 2.9. Additional coat of paint to external timber cills.
3. Internally timber to be rubbed down and to have 2no coats clear varnish or paint, depending upon current finish. Refer to Condition Survey Report for additional cills / panelling internally to be painted / varnished.
4. All existing sound ironmongery to be reused. Cleaning to be by hand. Begin with water and a cloth to remove general dirt and grime or moss growth. Light areas of corrosion can be removed using emery paper, taking care to remove any residue before applying paint. Brass window fittings to be lightly cleaned with a mild detergent and warm water, with dirt trapped in tooling and crevices to be removed with a soft bristle brush. Original patina to be retained. Apply a coating of microcrystalline wax with a clean dry rag or soft bristle brush and buff.
5. Seal around windows externally with burnt sand mastic.
   Manufacturer: Masons Mortar Ltd,
   Unit 1,
   Woodville Court,
   Woodville Street,
   Glasgow G51 2RL,
   Tel: 0141 4454812,
   Fax: 0141 445 8898.
   Product reference: Burnt sand and linseed oil mastic.
   Colour: Red.
   Application: Finish triangular fillets to a flat or slightly convex profile. Eroded, defective masonry should be repaired to form a neat edge where practicable to maintain the mastic joint at a consistent size. Joints that have lost thier lime backing to be packed with a well haired lime mortar to within 10mm of the plane of the ingo. Ensure that nothing enters the weight pocket: expanding foam not to be used. Ensure that timber frame has no loose or flaky paint, and that it has been fully primed and undercoated prior to the application of mastic. Use tape to protect masonry from undue surface spread. Mix mastic to manufacturer's instructions and allow to stand in a covered container for approximately 2 hours. Fill joint from the bottom up

and flush mastic with the face of the ingo tight to the frame. After filling press and draw the trowel to create a neat regular flush fillet. Clean away any excess mastic and wipe the finished timber edges upon completion. Remove tape immediately. Do not overpaint mastic.

6. Seal around windows internally with polysulphide mastic.

Ω End of Section

L40
General glazing

Clauses

2 To be read with preliminaries/ general conditions.

General requirements

150 Workmanship and positioning generally

1. Glazing generally: To BS 6262.
2. Integrity: Glazing must be wind and watertight under all conditions with full allowance made for deflections and other movements.
3. Dimensional tolerances: Panes/ sheets to be within ± 2 mm of specified dimensions.
4. Materials
   - 4.1. Compatibility: Glass/ plastics, surround materials, sealers, primers and paints/ clear finishes to be used together to be compatible. Avoid contact between glazing panes/ units and alkaline materials such as cement and lime.
   - 4.2. Protection: Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

151 Preparation

1. Surrounds, rebates, grooves and beads: Cleaned and prepared by others.

152 Preparation

1. Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.

155 Glass generally

1. Standards: To BS 952 and relevant parts of:
   - 1.1. BS EN 572 for basic soda lime silicate glass.
   - 1.2. BS EN 1096 for coated glass.
   - 1.3. BS EN 1748-1 for borosilicate glass.
   - 1.4. BS EN 1748-2 for ceramic glass.
   - 1.5. BS EN 1863 for heat strengthened soda lime silicate glass.
   - 1.6. BS EN 12150 for thermally toughened soda lime silicate safety glass.
   - 1.7. BS EN 12337 for chemically strengthened soda lime silicate glass.
   - 1.8. BS EN 13024 for thermally toughened borosilicate safety glass.
   - 1.9. BS EN ISO 12543 for laminated glass and laminated safety glass.
2. Panes/ sheets: Clean and free from obvious scratches, bubbles, cracks, rippling, dimples and other defects.
   - 2.1. Edges: Generally undamaged. Shells and chips not more than 2 mm deep and extending not more than 5 mm across the surface are acceptable if ground out.

165 Heat-soaking of thermally toughened glass

1. Standard: To BS EN 14179.
   - 1.1. Holding period (minimum): 8 hours
   - 1.2. Mean glass temperature: 290° ± 10°C.
2. Certified evidence of treatment: Submit.

Types of glazing

210A Putty fronted double glazing

1. Description: Replacement Slimlite double glazed units to all windows
2. Pane material: Outer pane 4mm toughened glass, 8mm argon or krypton gas filled cavity, inner pane 4mm toughened glass with low-emissivity coating to cavity side, with heritage super spacer bar
3. Surround: Hardwood
   - 3.1. Sealer: Paint primer

4. Type of putty: Linseed oil
5. Glass installation
   5.1. Glass: Located centrally in surround using setting and location blocks, and secured with glazing sprigs/ cleats/ clips at 300 mm centres.
   5.2. Finished thickness of back bedding after inserting glazing (minimum): 1.5 mm.
   5.3. Front putty: Finished to a smooth, neat triangular profile stopping 2 mm short of sight line. Surface lightly brushed to seal putty to glass and left smooth with no brush marks.
6. Sealing putty: Seal as soon as sufficiently hard but not within 7 days of glazing. Within 28 days apply either:
   6.1. The full final finish, suitably protected until completion and cleaned down and made good as necessary, or
   6.2. Two coats of primer applied locally to the compound, to be followed nearer completion with the full specified finish.
7. Opening lights: Keep in closed position until putty has set sufficiently to prevent displacement of glazing when opened.

Ω End of Section

M60
Painting/clear finishing

Clauses

2 To be read with preliminaries/general conditions.

Coating systems

130C Gloss paint

1. Description: To to previously painted exterior timber
2. Manufacturer: Dulux Trade, brand of AkzoNobel
3. www.duluxtrade.co.uk
4. john.ashford@akzonobel.com
5. T: +44 (0)333 222 7070
6. F: +44 (0)1753 532827
7. Wexham, Slough, Berkshire. SL2 5DS..
   7.1. Product reference: Dulux Trade Weathershield Exterior High Gloss.
8. Surfaces: Previously decorated timber.
   8.1. Preparation: As clauses 400, 440, 461.
9. Initial coats: 1 coat Dulux Trade Metal Primer to bare metal, 1 coat Dulux Trade Weathershield Aquatech Preservative .
10. Undercoats: Bring forward filled areas using 1 coat Dulux Trade Weathershield Exterior Flexible Undercoat.
11. Finishing coats: 1 coat Weathershield Exterior Flexible Undercoat + 2 coat Weathershield Exterior Gloss. **Exterior timber cills to have additional coat of gloss .**
12. Refer to clause 731 for additional coat to concealed surfaces.

Generally

215 Handling and storage

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.

220 Compatibility

1. Coating materials selected by contractor
   1.1. Recommended by their manufacturers for the particular surface and conditions of exposure.
   1.2. Compatible with each other.
   1.3. Compatible with and not inhibiting performance of preservative/fire retardant pretreatments.

280 Protection

1. 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

320 Inspection by coating manufacturers

1. General: Permit manufacturers to inspect work in progress and take samples of their materials from site if requested.

Preparation

400 Preparation generally

1. Standard: In accordance with BS 6150.
2. Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
3. Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
4. Substrates: Sufficiently dry in depth to suit coating.
5. Efflorescence salts: Remove.

6. Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
7. Surface irregularities: Remove.
8. Joints, cracks, holes and other depressions: Fill flush with surface, to provide smooth finish.
9. Dust, particles and residues from preparation: Remove and dispose of safely.
10. Water based stoppers and fillers
    10.1. Apply before priming unless recommended otherwise by manufacturer.
    10.2. If applied after priming: Patch prime.
11. Oil based stoppers and fillers: Apply after priming.
12. Doors, opening windows and other moving parts
    12.1. Ease, if necessary, before coating.
    12.2. Prime resulting bare areas.

425 Ironmongery

1. Removal: Remove ironmongery from surfaces to be coated.
2. Hinges: Remove
3. Replacement: Refurbishment as necessary; refit when coating is dry.

430 Existing ironmongery

1. Refurbishment: Remove old coating marks. Clean and polish.

440 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150, clause 11.5.
2. Contaminated or hazardous surfaces: Give notice of:
    2.1. Coatings suspected of containing lead.
    2.2. Substrates suspected of containing asbestos or other hazardous materials.
    2.3. Significant rot, corrosion or other degradation of substrates.
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. 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
    7.1. Thoroughly clean to remove dirt, grease and contaminants.
    7.2. Gloss coated surfaces: Provide key.
8. Partly removed coatings
    8.1. Additional preparatory coats: Apply to restore original coating thicknesses.
    8.2. Junctions: Provide flush surface.
9. Completely stripped surfaces: Prepare as for uncoated surfaces.

461 Previously coated wood

1. Degraded or weathered surface wood: Take back to provide suitable substrate.
2. Degraded substrate wood: Repair with sound material of same species.
3. Exposed resinous areas and knots: Apply two coats of knotting.

471 Preprimed wood

1. Areas of defective primer: Take back to bare wood and reprime.

481 Uncoated wood

1. General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
2. Heads of fasteners: Countersink sufficient to hold stoppers/fillers.
3. Resinous areas and knots: Apply two coats of knotting.

622 Organic growths

1. Dead and loose growths and infected coatings: Scrape off and remove from site.
2. Treatment biocide: Apply appropriate solution to growth areas and surrounding surfaces.
3. Residual effect biocide: Apply appropriate solution to inhibit re-establishment of growths.

631 Previously painted window frames

1. Paint encroaching beyond glass sight line: Remove.
2. Loose and defective putty: Remove.
3. Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
4. Finishing
   4.1. Patch prime, reputty as necessary, and allow to harden.
   4.2. Seal and coat as soon as sufficiently hard.

Application

711 Coating generally

1. Application standard: In accordance with BS 6150, clause 9.
2. 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. Priming coats
   6.1. Thickness: To suit surface porosity.
   6.2. Application: As soon as possible on same day as preparation is completed.
7. Finish
   7.1. Even, smooth and of uniform colour.
   7.2. Free from brush marks, sags, runs and other defects.
   7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

720 Priming joinery

1. Preservative treated timber: Retreat cut surfaces with two flood coats of a suitable preservative before priming.
2. End grain: Coat liberally allow to soak in, and recoat.

730 Workshop coating of concealed joinery surfaces

1. General: Apply coatings to all surfaces of components.

731 Site-coating of concealed joinery surfaces

1. General: After priming, apply additional coatings to surfaces that will be concealed when fixed in place.
   1.1. Components: Built in window frames and external door frames
   1.2. Additional coatings: One undercoat

790 Linseed oil putty glazing

1. Setting: Allow putty to set for seven days.
2. Sealing
   2.1. Within a further 14 days, seal with an oil based primer.
   2.2. Fully protect putty with coating system as soon as it is sufficiently hard.
   2.3. Extend finishing coats on to glass up to sight line.

800 Glazing

1. Etched, sand blasted and ground glass: Treat or mask edges before coating to protect from contamination by oily constituents of coating materials.

Ω End of Section

Z20
Fixings and adhesives

Clauses

2 To be read with preliminaries/ general conditions.

Products

310 Fasteners generally

1. Materials: To have:
   1.1. Bimetallic corrosion resistance appropriate to items being fixed.
   1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. Appearance: Submit samples on request.

320 Packings

1. Materials: Noncompressible, corrosion proof.
2. Area of packings: Sufficient to transfer loads.

330 Nailed timber fasteners

1. Nails
   1.1. Steel: To BS 1202-1 or BS EN 10230-1.
   1.2. Copper: To BS EN 1202-2.
   1.3. Aluminium: To BS 1202-3.

340 Masonry fixings

1. Light duty: Plugs and screws.
2. Heavy duty: Expansion anchors or chemical anchors.

350 Plugs

1. Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

360 Anchors

1. Types
   1.1. Expansion: For use in substrate strong enough to resist forces generated by expansion of anchor.
   1.2. Adhesive or chemical
      1.2.1. For use in substrate where expansion of anchor would fracture substrate.
      1.2.2. For use in irregular substrate where expansion anchors cannot transfer load on anchor.
   1.3. Cavity: For use where the anchor is retained by toggles of the plug locking onto the inside face of the cavity.

370 Wood screws

1. Type
   1.1. Wood screws (traditional pattern).
      1.1.1. Standard: To BS 1210.
   1.2. Wood screws.
      1.2.1. Pattern: Parallel, fully threaded shank or twin thread types.
2. Washers and screw cups: Where required are to be of same material as screw.

380 Miscellaneous screws

1. Type: To suit the fixing requirement of the components and substrate.
   1.1. Pattern: Self-tapping, metallic drive screws, or power driven screws.
2. Washers and screw cups: Where required to be of same material as screw.

390 Adhesives

1. Standards
   1.1. Hot-setting phenolic and aminoplastic: To BS 1203.
   1.2. Thermosetting wood adhesives: To BS EN 12765.
   1.3. Thermoplastic adhesives: To BS EN 204.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

620 Fixing through finishes

1. Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

650 Nailed timber fixing

1. Penetration: Drive fully in without splitting or crushing timber.
2. Surfaces visible in completed work: Punch nail heads below wrot surfaces.
3. Nailed timber joints: Two nails per joint (minimum), opposed skew driven.

660 Screw fixing

1. Finished level of countersunk screw heads
   1.1. Exposed: Flush with timber surface.
   1.2. Concealed (holes filled or stopped): Sink minimum 2 mm below surface.

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
2. Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
3. Finished adhesive joints: Fully bonded. Free of surplus adhesive.

Ω End of Section

Z21
Mortars

Clauses

2 To be read with preliminaries/ general conditions.

Cement gauged mortars - Not Used

Lime:sand mortars

310 Lime:sand mortar mixes

1. Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

320 Sand for lime:sand masonry mortars

1. Type: Sharp, well graded.
   1.1. Quality, sampling and testing: To BS EN 13139.
   1.2. Grading/ Source: As specified elsewhere in relevant mortar mix items.

350 Storage of lime:sand mortar materials

1. Sands and aggregates: Keep different types/ grades in separate stockpiles on hard, clean, free-draining bases.
2. Ready prepared nonhydraulic lime putty: Prevent drying out and protect from frost.
3. Nonhydraulic lime:sand mortar: Store on clean bases or in clean containers that allow free drainage. Prevent drying out or wetting and protect from frost.
4. Bagged hydrated hydraulic lime: Store off the ground in dry conditions.

360 Making lime:sand mortars generally

1. Batching: By volume. Use clean and accurate gauge boxes or buckets.
2. Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
3. Contamination: Prevent intermixing with other materials, including cement.

370 Site prepared nonhydraulic lime:sand mortars

1. Mixing: Mix materials thoroughly by compressing, beating and chopping. Do not add water.
   1.1. Equipment: Roller pan mixer or submit proposals.
2. Maturation period before use (maximum): Seek instructions

390 Knocking up nonhydraulic lime:sand mortars

1. Knocking up before and during use: Achieve and maintain a workable consistency by compressing, beating and chopping. Do not add water.
   1.1. Equipment: Roller pan mixer or submit proposals.

400 Making hydraulic lime:sand mortars

1. Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix.
   1.1. Water quantity: Only sufficient to produce a workable mix.
2. Working time: Within limits recommended by the hydraulic lime manufacturer.

Ω End of Section

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