

## **L20 DOORS/ SHUTTERS/ HATCHES**

To be read with Preliminaries/ General conditions.

### **PRELIMINARY INFORMATION/ REQUIREMENTS**

- 110 EVIDENCE OF PERFORMANCE
  - Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.
- 115 FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES
  - Certification: Provide evidence, in the form of a product conformity certificate, test report or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements for fire resistance if tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- 120 FIRE RESISTING STEEL DOORS/SHUTTERS
  - Provide evidence that the doors and doorsets comply with the Loss Prevention Council Rules for the construction and installation of firebreak doors and shutters.
- 150 SITE DIMENSIONS
  - Procedure: Before starting work on any components take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- 160 PROTOTYPES
  - Prepare one of each of the components and arrange for inspection by the CA before starting repetitive fabrication.
- 170 CONTROL SAMPLES
  - Procedure:
    - Finalize component details.
    - Fabricate one of each of the components as part of the quantity required for the project.
    - Obtain approval of appearance and quality before proceeding with manufacturer of the remaining quantity.

### **COMPONENTS**

- 415 PAINTED PLYWOOD FACED INTERNAL TIMBER FLUSH DOORSETS
  - Manufacturer: LS Leaderflush Shapland (Tel: 0870 240 0666).  
or: other similar approved.
  - Door leaf:
    - Fire rating: As schedules.
    - Core: Solid laminated timber.
    - Facings:
      - 4mm thick WBP plywood on chipboard.
      - MDF as clause K11/875 permitted to inner (concealed) riser doors.
    - Lippings: 8mm hardwood to 2 long edges.
    - Finish as delivered: Primed by manufacturer.
    - Finish: Painted as M60/152.
    - Glazing details: Refer to drawings (all vision panels to be fire resisting clear glass- wired glass not permitted), painted hw bead fixing.
  - Frame and architraves:
    - Fire rating: As schedules.
    - Wood species: Hardwood.
    - Class: (to BS 1186:Part 1): 1
    - Finish as delivered: Primed by manufacturer.
    - Finish: Painted as M60/150.
  - Moisture content on delivery: 15%±2
  - Fixing: Screwed and pelleted.

- 416 PLASTIC LAMINATE FACED INTERNAL TIMBER FLUSH DOORSETS
- Manufacturer: As clause 415.
  - Door leaf:
    - Fire rating: As schedules.
    - Core: Wood fibre insulation board (E).
    - Facings: 6mm WBP plywood.
    - Lippings: 8mm polished hardwood.
    - Laminate facing to run over lipping on front and rear faces of door leaf: ie lipping not visible when door is in the closed position.
    - Finish as delivered:
    - Manufacturer and grade: Polyrey or other equal approved, high pressure laminate in accordance with BS EN 438:Part 1 Classification HDF, Fire rating Class O.
    - Colour/finish: to CA's approval from laminate manufacturer's full range.
    - Glazing details: Refer to drawings (all vision panels to be fire resisting clear glass- wired glass not permitted), painted hw bead fixing. Where indicated on the drawings or schedules, translucent coloured interlayer; colour to CA's approval from manufacturer's full range including non-standard colours.
  - Frame:
    - Fire rating: As schedules.
    - Wood species: Hardwood.
    - Class: (to BS 1186:Part 1): 1
    - Finish as delivered: Primed by manufacturer.
    - Finish: Painted as M60/150.
  - Moisture content on delivery: 12%±2
  - Fixing: Screwed and pelleted.
- 417 STAINLESS STEEL FACED INTERNAL TIMBER FLUSH DOORSETS
- Manufacturer: As clause 415.
  - Door leaf:
    - Fire rating: As schedules.
    - Core: Wood fibre insulation board (E).
    - Facings: 1.2mm thick Grade 304 stainless steel bonded to 6mm WBP plywood.
    - Lippings: 1.2mm thick Grade 304 stainless steel.
    - Finish as delivered: Satin and mirror polished to bespoke pattern as indicated on the drawings; polish to CA's approval.
    - Glazing details: Refer to drawings (all vision panels to be fire resisting clear glass- wired glass not permitted), satin polished stainless steel bead fixing.
  - Frame:
    - Fire rating: As schedules.
    - Wood species: Hardwood.
    - Class: (to BS 1186:Part 1): 1
    - Finish as delivered: 1.2mm thick Grade 304 stainless steel.
    - Finish: satin polished; polish to CA's approval.
  - Moisture content on delivery: 12%±2
  - Fixing: Concealed steel fixing lugs, fire protected where doors are fire rated.
- 460 FRAMELESS GLASS DOORS AND FIXED SIDE SCREENS
- Manufacturer: Dorma Entrance Systems Ltd (Tel: 01462 477600)
  - Door leaf material: Toughened safety glass to BS 6206, class A.
    - Thickness: To match adjoining structural glazing.
    - Colour: Clear.
  - Decoration: Bespoke manifestation as shown on the drawings to CA's approval, by Etchlike (Tel: 0800 282 2821).
  - Door rails: Dorma Glas continuous aluminium head and cill rails.
    - Material/ Finish: Silver anodised aluminium.
  - Peripheral fixings: Concealed channel.
  - Lock: Adams Rite deadlock 1850/A operated by Newman Tonks MIWA N3/441 cylinder.
    - Position: To each leaf both sides at high and low level.
  - Floor springs: Dorma Glas double swing with 90 degree stand open.
  - Pull handles: Algoods 'd line'.
    - Size: 650x19mm offset cranked pull handles 1pair per leaf, fixed back to back ref 14.4232.02.654.
    - Material/ Finish: Satin polished ss.
  - Additional ironmongery/ accessories: 1 pair Algoods 'd line' stops per leaf ref. 14.5070.02.

**480A STEEL DOORSETS TO EDF ENERGY TRANSFORMER CHAMBER: OPTION 1**

The contractor is to price all three specifications L20/480A, 480B, and 480C which are subject to the approval of EDF Energy.

The preferred option (subject to EDF approval) is L20/480A.

- Manufacturer: Sunray Engineering Ltd (Tel: 01233 639 039).
  - Product reference: LouvreDoor Steel Door System.
- Door leaf: Steel double door, fully louvred.
  - Finish as delivered: PPC finish as M60/145.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Frame and architraves: Steel RHS.
  - Finish as delivered: PPC finish as M60/145.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Overpanel: Steel fully louvred to match door leafs.
  - Finish as delivered: PPC finish as M60/145.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Ironmongery: 3-point locking with internal panic bar; padlockable PPC finish handle.
- Other requirements:
 

PPC finish blanking plates (allow for 50% of door area) and vermin guard to rear of door leafs and overpanel.  
PPC finish threshold plate.

**480B STEEL DOORSETS TO EDF ENERGY TRANSFORMER CHAMBER: OPTION 2**

The contractor is to price all three specifications L20/480A, 480B, and 480C which are subject to the approval of EDF Energy.

The preferred option (subject to EDF approval) is L20/480A.

- Manufacturer: Sunray Engineering Ltd (Tel: 01233 639 039).
  - Product reference: Heavy Duty steel plate doorset ref. DO/SD/001 type E.
- Door leaf: Steel double door, louvred (non-standard size, as indicated on the drawings).
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Frame and architraves: Steel angle.
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Overpanel: Steel plate (non-standard size, as indicated on the drawings).
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Ironmongery: 3-point locking with internal panic bar; padlockable PPC finish handle.
- Other requirements:
 

PPC finish blanking plates (allow for 50% of door area) and vermin guard to rear of door leafs.

**480C STEEL DOORSETS TO EDF ENERGY TRANSFORMER CHAMBER: OPTION 3**

The contractor is to price all three specifications L20/480A, 480B, and 480C which are subject to the approval of EDF Energy.

The preferred option (subject to EDF approval) is L20/480A.

- Manufacturer: Sunray Engineering Ltd (Tel: 01233 639 039).
  - Product reference: Firelock steel plate doorset.
- Door leaf: Steel double door (non-standard size, as indicated on the drawings).
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Frame and architraves: Steel angle.
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Overpanel: Steel plate (non-standard size, as indicated on the drawings).
  - Finish as delivered: Shop sprayed as M60/110.
  - Colour: From manufacturer's full range including non-standard colours, to CA's approval.
- Ironmongery: Surelock McGill Type B1 three point locking panic bar system to inside with padlockable Sunray 6000 Hasp & Staple to front.

**INSTALLATION**

**710 PROTECTION OF COMPONENTS**

- General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry, floored and covered storage.
  - Stored components: Stacked on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.
- 730 PRIMING/ SEALING
- Timber surfaces inaccessible after installation: Primed or sealed as specified before fixing components.
- 740 CORROSION PROTECTION
- Surfaces to be protected: All dissimilar adjoining surfaces prone to corrosion in damp conditions.
  - Protective coating: Two coats of bitumen solution to BS 6949 or an approved mastic impregnated tape.
  - Timing of application: Before fixing components.
- 750 FIXING DOORSETS
- Timing: After rooms have been made weathertight and the work of wet trades is finished and dried out.
- 760 BUILDING IN
- General: Not permitted unless indicated on drawings.
- 780 DAMP PROOF COURSES IN PREPARED OPENINGS
- Location: Correctly positioned in relation to door frames. Do not displace during fixing operations.
- 790 FIXING OF WOOD FRAMES
- Spacing of fixings (frames not predrilled): 150 mm from ends of each jamb and at 300 mm maximum centres.
- 800 FIXING OF LOOSE THRESHOLDS
- Spacing of fixings: 150 mm from each end and at 150 mm maximum centres.
- 820 SEALANT JOINTS
- Sealant:
    - Manufacturer: As H11 & Z22
    - Product reference: As H11 & Z22
    - Colour: To CA's approval and as H11 & Z22/110.
    - Application: As section H11 & Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.
- 830 FIXING IRONMONGERY GENERALLY
- Fasteners: Supplied by ironmongery manufacturer.
  - Finish/ Corrosion resistance: To match ironmongery.
  - Holes for components: No larger than required for satisfactory fit/ operation.
  - Adjacent surfaces: Undamaged.
  - Moving parts: Adjusted, lubricated and functioning correctly at completion.
- 840 FIXING IRONMONGERY TO FIRE RESISTING DOOR ASSEMBLIES
- General: All items fixed in accordance with door leaf manufacturer's recommendations ensuring that integrity of the assembly, as established by testing, is not compromised.
  - Holes for through fixings and components: Accurately cut.
    - Clearances: Not more than 8 mm unless protected by intumescent paste or similar.
  - Lock/ Latch cases for FD60 doors: Coated with intumescent paint or paste before installation.
- 850 LOCATION OF HINGES
- Primary hinges: Where not specified otherwise, positioned with centre lines 250 mm from top and bottom of door leaf.
  - Third hinge: Where specified, positioned on centre line of door leaf.
  - Hinges for fire resisting doors: Positioned in accordance with door leaf manufacturer's recommendations.
- 860 INSTALLATION OF EMERGENCY EXIT DEVICES
- Standard: Unless specified otherwise, install panic bolts/ latches in accordance with BS EN 1125.

END