

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

To be read with Preliminaries/ General conditions.

### **GENERAL**

#### **110 EVIDENCE OF PERFORMANCE**

- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

#### **112 TIMBER PROCUREMENT**

- Timber (including timber for wood-based products): 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)'.
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.
- Certification scheme: FSC.

#### **115 FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS**

- Door products: As defined in BS EN 12519.
- Evidence of fire performance: Provide certified evidence, in the form of a product conformity certificate, directly relevant fire test report or engineering assessment, that each door/ door assembly/ doorset supplied will comply with the specified requirements for fire or smoke 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.
- Components, assemblies or sets will be marked to the relevant product standard and/ or third party certification rating.

#### **120 NON FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS**

- Provide certified evidence, in the form of a product conformity certificate or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements to BS EN 14351-1. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- Components and assemblies will be marked to the relevant product standard and/ or third party certification rating.

#### **150 SITE DIMENSIONS**

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items: All items.

#### **170 CONTROL SAMPLES**

- Procedure:
  - Finalize component details.
  - Fabricate one of each of the following designated items as part of the quantity required for the project.
  - Obtain approval of appearance and quality before proceeding with manufacture of the remaining quantity.
- Designated items: representative doorset.

## PRODUCTS

### 410 WOOD DOORSETS (fire rated)

- Materials: Generally to BS EN 942.
- Manufacturer: Integrated Doorsets. Designer Range interior doorsets OR EQUAL AND APPROVED.
  - Product reference: Enduracor.
  - Sustainability: All timber products certified FSC 100% full chain of custody.
  - Fire performance: 30 MINUTES INTEGRITY.
  - Smoke control: Required
  - Certification: BWF-CERTIFIRE.
  - Acoustic performance: Not required.
  - Door leaf:
    - Core: 45mm Enduracor Heavy duty with finger-jointed softwood perimeter framing around core.
    - Facings: MDF.
    - Lippings: Hardwood.
  - Finish as delivered: primed (paint grade for painting on-site by others).
  - Glazing details if required (see door series drawings)
  - Bead system: Hardwood bolection bead, pinned, finish to match lippings, square.
  - Size and position of aperture(s): As per door type elevations A3100 series.
  - Glass: Clear, to suit fire performance (30min FR Integrity and Insulation).
  - Frame: HW Barum 32 mm thick with 14mm separate stop.
  - Architraves: Supplied buy others
  - Material: Sustainable Hardwood.
  - Class (to BS EN 942): J30.
  - Finish as delivered: Primed for painting on site by others.
  - Moisture content on delivery: 10 to 12%.
  - Ironmongery: As schedule.
  - Hinges: satin stainless steel fixed pin hinge Grade 13 to BS EN 1935, supplied by ironmongery supplier and fixed by doorset manufacturer.
  - Locks: Factory morticed, supplied by ironmongery supplier and fixed by doorset manufacturer.
  - Fire seals: Exposed to meet FD30 standards with smoke seals rebated into frame.
  - Fixing: Factory drilled frames with matching pellets.

Other Requirements:

### 415 WOOD DOORSETS (non-fire rated paint grade – refer to fire strategy drawings)

- Materials: Generally to BS EN 942.
- Manufacturer: Integrated Doorsets. Designer Range interior doorsets OR EQUAL AND APPROVED.
  - Product reference: Enduracor.
- Sustainability: All timber products certified FSC 100% full chain of custody.

- Fire performance: NA
- Smoke control: NA
- Certification: NA
- Acoustic performance: Not required.
- Door leaf:
- Core: 45mm Enduracor Heavy duty with finger-jointed softwood perimeter framing around core.
- Facings: MDF.
- Lippings: Hardwood.
- Finish as delivered: primed (paint grade for painting on-site by others).
- Glazing details if required (see door series drawings)
- Bead system: Hardwood bolection bead, pinned, finish to match lippings, square.
- Size and position of aperture(s): As per door type elevations A3100 series.
- Glass: Clear, to suit fire performance (30min FR Integrity and Insulation).
- Frame: HW Barum 32 mm thick with 14mm separate stop.
- Architraves: Supplied by others
- Material: Sustainable Hardwood.
- Class (to BS EN 942): J30.
- Finish as delivered: Primed for painting on site by others.
- Moisture content on delivery: 10 to 12%.
- Ironmongery: As schedule.
- Hinges: satin stainless steel fixed pin hinge Grade 13 to BS EN 1935, supplied by ironmongery supplier and fixed by doorset manufacturer.
- Locks: Factory morticed, supplied by ironmongery supplier and fixed by doorset manufacturer.
- Fixing: Factory drilled frames with matching pellets.
- Other Requirements:
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#### **420 FULLY GLAZED HW FRAMED DOORS / SCREENS**

- Drawing reference(s): Refer to plans, Internal window elevations A3120
- Manufacturer: Pendle Doors .
  - Product reference: Bespoke Doors & Screens .
- Performance: 60min FR .
- Door leaf: refer to drawings.
- Decoration: as M60.160.
- Manifestation: 3M M Scotchcal Series 7725 Dusted Crystal product
- Ironmongery: refer to schedule and elevations
  - Material/ Finish: Oak.
  - Material/ Finish to InW02 (main venue) – painted to match others

#### **430 SLIDING POCKET DOORS**

- Drawing reference(s): Refer to plans, door elevations and Door Schedule.
- Sustainability: All timber products certified FSC 100% full chain of custody.
- Manufacturer: Eclisse UK or equal approved
- Product reference: Single sliding pocket door
- Fire performance: Use 15 x 4 mm intumescent strips and 12.5 mm plasterboard with a FD30 fire-rating
- Smoke control: None required
- Certification: None required
- Acoustic performance: No requirement

- Door leaf: 44mm
- Core: Solid core severe duty with finger-jointed softwood perimeter framing around core.
- Facings: MDF for painting
- Lippings: Hardwood to long edges.
- Finish as delivered: Primed for painting on site by others.
- Finish as delivered:
- Moisture content on delivery: 10 to 12%.
- Ironmongery: As schedule
- Door leaf: As schedule
- Operation: Sliding.

Other requirements: Door stop set to avoid finger trapping with ironmongery

#### 470 STEEL DOORSETS

- Drawing reference(s): Refer to plans, Door schedule A2300
- Manufacturer: ACCENT HANSEN OR EQUAL AND APPROVED.
  - Product reference: SECURESHIELD to LPS 11 75 (Grade 2)
- Door leaf: 46MM THICK
  - Finish as delivered: STANDARD APP 120 POWDER COAT PAINT FINISH RAL COLOUR TBC.
- Frame and architraves: 1.6MM ZINC COATED STEEL PRESSED SINGLE REBATE (TYPE SR:A).
  - Finish as delivered: STANDARD APP 120 POWDER COAT PAINT FINISH RAL COLOUR TBC.
- Glazing details: N/A.
- Ironmongery: REFER TO P21 SCHEDULE.

Fitted with Overhead Closer

Fitted with AR 1850-350 Hooklock.

Fitted with Standard cylinder.

- Other requirements: STEEL FLUSH THRESHOLD
- Fixing: TO MANUFACTURERS DETAIL AND TO COMPLY WITH SECURE BY DESIGN STANDARDS.

#### 490 LOW ENERGY SWING DOOR – W04

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturers    | DORMA UK LTD.<br>WILBURY WAY, HITCHIN, SG4 0AB.<br>CONTACT: Tim Checketts<br>Tel: +44 (0)7920 231224<br>Email: <a href="mailto:specification.gb@dormakaba.com">specification.gb@dormakaba.com</a><br>Web: <a href="http://www.dormakaba.co.uk">www.dormakaba.co.uk</a>                                                                                                                                                                                                                                                                              |
| Operating System | ED100LE Surface Applied Low Energy Swing Door Operator with AP Frameless Door Leaves                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                  | <ul style="list-style-type: none"> <li>▪ Tested and certified to 1,000,000 operation cycles</li> <li>▪ Integrated ESM Energy Saving Mode function which allows the sensors to be switched to standby to minimise unnecessary power (Up to 30% power saving)</li> <li>▪ Drive unit encased in purpose designed extruded aluminium profile</li> <li>▪ 70 (H) x 130 mm (D) x 700 (W)</li> <li>▪ Electromechanical automatic drive unit consisting of a DC motor, multi-stage gearing, spring and modular designed electronic control system</li> </ul> |

- Adjustable electronic control system to overcome doors seals or latch action locking devices during the closing cycle.
- Certifire tested (certificate available on request)
- Mainly closes via spring force with direct drive technology to power close minimising energy loss
- Steplessly adjustable closing force EN 1154 between (EN 2 – 4 ED100
- Adjustable opening speed
- Hold open time adjustable between 0 and 30 seconds
- 4 position mode switch (off, automatic, hold open, exit only)

Activation Entry: Touchless Switch  
Exit: Touchless Switch

- Manual push
- Dormakaba Wireless touchless MAGIC SWITCH actuation x2
- ~~Link to access control (By others). DORMA require a normally open volt free contact momentarily closed on receipt of a valid signal from the access control system~~

Power Failure/Fire Alarm In the event of power failure door reverts to spring controlled manual operation

#### Safety Devices

- DORMA Prosecure Opti Safe tested safety sensors fitted to opening and closing side of each door leaf
- Vertical finger guard
- Self-regulating safety system monitoring all door movements including closing force

#### Locking Facility

- ~~Surface applied electromagnetic~~
- Manual bottom locking
- ~~By others~~

#### Door leaves and operator cover

- Door leaves constructed with 100mm top and bottom rails:1050mm (W) x 2338mm (W)
- Toughened safety glass manufactured to BS:6206 (Standard)
- Push plates / pull handles by others.
- Aluminium Profile coating

#### Side Panel

- By others

Applicable Standards The installation shall comply with BS EN 16005

Electrical Requirements The electrical contractor shall provide a 240-volt AC mains spur to the right-hand side of the opening above and on the same face that each drive unit is fitted. The

spur must be switched and fused with a central flex outlet faceplate. A 10 amp residual circuit breaker at the mains board and a 5-amp fuse at the spur shall protect the circuit.

~~Fire Alarm Requirements The fire alarm specialist shall provide a normally open volt free contact that is closed on alarm. The contacts shall be terminated adjacent to the fused spurs~~

## **L20/491 LOW ENERGY SWING DOOR – INW01**

Manufacturers DORMA UK LTD.

WILBURY WAY, HITCHIN, SG4 0AB.

CONTACT: Tim Checketts

Tel: +44 (0)7920 231224

Email: [specification.gb@dormakaba.com](mailto:specification.gb@dormakaba.com)

Operating System ED100LE Surface Applied Low Energy Swing Door Operator with AP Frameless Door Leaves

- Tested and certified to 1,000,000 operation cycles
- Integrated ESM Energy Saving Mode function which allows the sensors to be switched to standby to minimise unnecessary power (Up to 30% power saving)
- Drive unit encased in purpose designed extruded aluminium profile
- 70 (H) x 130 mm (D) x 700 (W)
- Electromechanical automatic drive unit consisting of a DC motor, multi-stage gearing, spring and modular designed electronic control system
- Adjustable electronic control system to overcome doors seals or latch action locking devices during the closing cycle.
- Certifire tested (certificate available on request)
- Mainly closes via spring force with direct drive technology to power close minimising energy loss
- Steplessly adjustable closing force EN 1154 between (EN 2 – 4 ED100)
- Adjustable opening speed
- Hold open time adjustable between 0 and 30 seconds
- 4 position mode switch (off, automatic, hold open, exit only)

Activation Entry: Touchless Switch

Exit: Touchless Switch

- Manual push
- Dormakaba Wireless touchless MAGIC SWITCH actuation x2
- ~~Link to access control (By others). DORMA require a normally open volt free contact momentarily closed on receipt of a valid signal from the access control system (Option)~~

Power Failure/Fire Alarm In the event of power failure door reverts to spring controlled manual operation

Safety Devices

- DORMA Prosecure Opti Safe tested safety sensors fitted to opening and closing side of each door leaf
- Vertical finger guard
- Self-regulating safety system monitoring all door movements including closing force

#### Locking Facility

- Surface applied electromagnetic
- Manual bottom locking
- By others

#### Door leaves and operator cover

- Door leaves constructed with 100mm top and bottom rails: 1050mm (W) x 2250mm (H)
  - Toughened safety glass manufactured to BS:6206 (Standard)
  - Push plates / pull handles by others.
- Aluminium Profile coating

#### Side Panel

- 750mm (W) x 2250mm (H) glass side panel with 100mm top and bottom rails

Applicable Standards      The installation shall comply with BS EN 16005

Electrical Requirements      The electrical contractor shall provide a 240-volt AC mains spur to the right-hand side of the opening above and on the same face that each drive unit is fitted. The spur must be switched and fused with a central flex outlet faceplate. A 10 amp residual circuit breaker at the mains board and a 5-amp fuse at the spur shall protect the circuit.

Fire Alarm Requirements      The fire alarm specialist shall provide a normally open volt free contact that is closed on alarm. The contacts shall be terminated adjacent to the fused spurs

## 520      SLIDING METAL SHUTTERS

- Drawing reference(s): L1001, A2500, A2501
- Manufacturer: Wessex Industrial Doors LTD.  
Artillery Rd, Lufton Trading Estate, Yeovil, Somerset, BA22 8RP  
Location
- Product reference: Industrial Sliding Door
- Galvanised steel concertina top hung sliding screen.
- Locking: Key operated 5 Pin. Multipoint locking system to enable positive locking from either side.
- Finish/ Colour: Galvanised and painted (PPC) to RAL 3028 (Pure Red)

## ~~630~~      ~~HATCHES~~ \_\_\_\_\_

~~Manufacturer: \_\_\_\_\_.~~

~~Product reference: \_\_\_\_\_.~~

~~Performance: \_\_\_\_\_.~~

~~Operation: \_\_\_\_\_.~~

~~Other requirements: \_\_\_\_\_.~~

#### **640 INTERNAL SECURITY ROLLER SHUTTER**

- Drawing reference(s): Refer to plans and door elevations
- Manufacturer: SWS UK, Hornby Road, Clayton, LA2 9LA.
- Location & sizes
  - RS01 (roller shutter to cloakroom) – 800xx(w) x 1450 (h)
- Product reference: Built In Security Shutter- SeceuroShield 3801
- Performance: Medium Security.
- Arrangement: Vertical Roller Shutter .
- Shutter/ curtain material: Extruded Aluminium with convec faces
  - Finish as delivered: Polyester Powder Coated. Colour- RAL- TBC.
- Frame/ Guides: H40/S .
- Operation: Single phase electric operation
- Ironmongery: N/A.

#### **641 INTERNAL SECURITY ROLLER SHUTTER FIRE RATED**

- SUBJECT TO REVIEW BY FIRE CONSULTANT. CA TO APPROVE CONTRACTOR PROPOSAL
- Drawing reference(s): Refer to OMI drawings
- Manufacturer: SWS UK, Hornby Road, Clayton, LA2 9LA.
- Location & sizes
  - RS02 (roller shutter to box office) - 800(w) x 1000 (h)
- Product reference: Built In Security Shutter- SeceuroFire Fire Shutter
- Performance: 60 minute.
- Arrangement: Vertical Roller Shutter .
- Shutter/ curtain material: Finish as delivered; Galvanised
- Frame/ Guides: To achieve reveal installation, concealed within plasterboard reveals.
- Operation/ Fire activation: Electro mechanical solenoid units with fully automatic reset. Fire guard alarm interface panel. High level control panel. Low level paddle switch. Shutter to automatically return to the closed position (within a time to be agreed with Building Control) until such time that the building alarm is deactivated/reset.
- Control: Low level paddle switch
- Safety: Manufacturers standard.
- Accessories: Removable motor cover
- Ironmongery: N/A.
- To BSEN 16034; BSEN 1324.
- To meet requirements under The Regulatory Refore (Fire Safety) Order 2005 for maintenance and recording

#### **650 ACTIVE FIRE BARRIER/CURTAIN TO MAIN FOYER**

**NOTE: SUGGESTED PRODUCT FOR INCLUSION WITHIN INDICATIVE FIRE STRATEGY FOR FULL REVIEW AND APPROVAL BY FIRE CONSULTANT PRIOR TO ORDER OR INSTALLATION**

- Manufacturer: Coopers Fire Limited (or equal and approved
- Product: Firemaster
- Location: Main Foyer
- Size: to fit existing opening 1800(w) x 2100(h)
- Operation: Electrically operated, automatic/active barrier response

- In accordance with (including and not exclusive to): BS 8524-1; BS EN 1634-1; BS 5234-2; BS EN 14600; BS EN 13501-2; BS EN ISO 1716; BS EN 13501-1+A1; BS EN ISO 14184-1; BS EN 12101 10; BS ISO 21927 9

## **EXECUTION**

### **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**

- Wood surfaces inaccessible after installation: Primed or sealed as specified before fixing components.

### **740 CORROSION PROTECTION**

- Surfaces to be protected: \_\_\_\_\_ .
- 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 associated 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.

### **770 DAMP PROOF COURSES ASSOCIATED WITH BUILT IN WOOD FRAMES**

- Method of fixing: To backs of frames using galvanized clout nails.

### **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): Maximum 150 mm from ends of each jamb and at 600 mm maximum centres.

### **800 FIXING OF LOOSE THRESHOLDS**

- Spacing of fixings: Maximum 150 mm from each end and at 600 mm maximum centres.

### **809 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS/ ROLLER SHUTTERS/ CURTAINS**

- Installation: By a firm currently registered under a third party accredited fire door installer scheme in accordance with instructions supplied with the product conformity certificate, test report or engineering assessment.

**810 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS/ ROLLER SHUTTERS/ CURTAINS**

- Gaps between frames and supporting construction: Filled as necessary in accordance with requirements for certification and/ or door/ doorset manufacturer's instructions.

**820 SEALANT JOINTS**

- Sealant:
  - Manufacturer: Arbo .
  - Product reference: Arbocaulk .
  - Colour: White .
  - Application: As section 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 fire doors requiring > 60 minutes integrity performance: 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 centrally .
- 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.