

FIRE DOORS SPECIFICATION

FIRE DOORS

The doors which should be fire resisting and require attention are detailed in the door schedule and indicated on the attached plan. The doors should comply with the following standard.

Fire doors shall have the performance appropriate to their location. New fire doors shall either be suitably marked by the manufacturer or a test certificate shall be provided stating the performance of the door in accordance with BS 476-22 or BS EN 1634-1. The specification, installation and maintenance of fire doors should comply with BS 8214:2008.

EXISTING DOORS

Existing doors should meet the following standards:

Hinges shall be 100 mm steel butt, 1½ pair per leaf (brass hinges are permitted only when they have been tested and certified as part of a doorset).

Door Closers shall be fitted to all fire doors other than those fitted with locks and carrying the signage "Fire door keep locked shut". Door closers should comply with BS 6459: Part 1 (concealed [morticed]) door closers should not be fitted unless supported by test evidence for the door construction.

Leaf Selectors shall be fitted as per manufacturer's instructions. (New rebated leaf doors are not recommended).

Easy Opening Devices shall meet the performance requirements of BS 5725 fitted as per manufacturer's instructions.

Latches and Locks shall meet the performance requirements of BS 5872.

Intumescent Seals shall be to the standard required by the door. They shall be fitted as per manufacturer's instruction, either in the door lipping or frame. Where an intumescent seal is in a door with a fire resistance greater than 30 minutes part of the seal shall bypass all ironmongery fittings or alternatively those fittings shall be bedded in intumescent mastic. Where double leaf doors are to be fitted it is preferable to have the intumescent seal at the head fitted into the frame.

Smoke Seals should be installed in the doors indicated on the door schedule and they shall be fitted as per manufacturer's instructions to fire doors or frames. They may be fitted independently of the intumescent seal or as a combined intumescent/smoke seal. Smoke seals should bypass all ironmongery fittings.

Gaps at the Head, Hinge Side Lock/Latch Side and between Meeting Stiles shall be not more than 5 mm. (Excessive gaps may be reduced by applying solid timber of a suitable density to either the face of the frame or the door edges. This timber shall be pinned and glued in position using adhesive which will not thermally soften. Thin veneers of timber shall not be used as they burn away more rapidly than larger sections. The minimum thickness of timber to be applied shall be 6 mm. It may be necessary to reduce the size of the leaf before building up either the frame or the door edge.

Gaps at the Threshold shall not be excessive.

Glass shall be 6 mm safety GWPP for doors requiring 30 minutes fire resistance (glazing greater than 30 minutes or glazing required to have insulation shall be within the sizes recommended by the manufacturer. In all cases the manufacturer should confirm that the doors are suitable for glazing).

Glazing Bead Fixing for doors requiring 30 minutes fire resistance shall be by 30 mm 9 gauge brass screws fixed at maximum 200 mm centres and staggered where dual bead fixed is used. The beads shall be of hardwood of minimum density 650 kg/m³ and shall provide a minimum 15 mm cover to the edge of the glass. The unexposed faces of the beads shall be coated with an intumescent paint or varnish.

Door Frames for doors requiring 30 minutes fire resistance may be constructed from the solid or by using a liner with a planted stop. They may be of softwood not less than 32 mm thick with a minimum 12 mm stop. Planted stops shall be securely fixed by 38 mm 8 gauge steel screws countersunk and spaced 75 mm from the ends of each member and at intermediate points not more than 600 mm apart. Door frames for doors requiring 60 minutes fire resistance or greater shall be from the solid of hardwood of minimum density 650 kg/m³.

Architraves shall have a minimum 15 mm overlap to both frame and wall and be of 15 mm minimum, thickness. They may be of softwood for door frames requiring 30 minutes fire resistance and shall be of hardwood for 60 minutes or greater.

Door Signs shall be as designated by the Fire Officer and shall comply with BS 5499: Part 1.

Frame to Wall Gaps shall be treated as shown in Table 1 or Table 2.

Table 1: Guidance for joints between new timber door frames and walls

ARCHITRAVE	FRAME TO WALL GAP	FOR 30 MINUTE FIRE RESISTING DOORS	FOR 60 MINUTE FIRE RESISTING DOORS
(1) tightly fitting hardwood or softwood architrave of 15 mm minimum overlap to frame and wall tightly fitting 19 mm minimum hardwood quadrant	Up to 10 mm	No further provision	Provide - 2 mm x 10mm of intumescent material as a pre-formed strip or seal or Mineral or glass wool packed to a depth of at least 10 mm or A bead of intumescent paste or intumescent mastic
	More than 10 mm	Provide - 2 mm x 10mm of intumescent material as a pre-formed strip or seal or Mineral or glass wool packed to a depth of at least 10 mm or A bead of intumescent paste or intumescent mastic	Provide - 2 mm x 10mm of intumescent material as a pre-formed strip or seal or Mineral or glass wool packed to a depth of at least 10 mm or A bead of intumescent paste or intumescent mastic
(2) Condition (1) not met	All cases	Provide - 2 mm x 10mm of intumescent material as a pre-formed strip or seal or Mineral or glass wool packed to a depth of at least 10 mm or A bead of intumescent paste or intumescent mastic	Provide - 2 mm x 10mm of intumescent material as a pre-formed strip or seal or Mineral or glass wool packed to a depth of at least 10 mm or A bead of intumescent paste or intumescent mastic

Table 2: Guidance for joints between existing timber door frames and walls

ARCHITRAVE	REQUIRED ACTION
Where architrave is missing	Provide architrave and upgrade (if necessary) to meet (1) in Table 1
Where architrave meets (1) in Table 1	No action required
Where architrave does not meet (1) in Table 1	Upgrade to meet (2) in Table 1