High Wycombe Office:
Chiltern House, Stocking Lane,
High Wycombe,
HP14 4ND,
United Kingdom
T: +44 (0)1494 569750
W: www.warringtonfire.com

Title

Field of Application for:

The Warm Springs Composite Products Range of Doorsets

For 60, 90 and 120 minutes Fire Resistance

Report No.:

Chilt/A12138 Revision B

Issue Date:

12th October 2023

Valid Until:

01st February 2027

Job Reference:

511608

Prepared for:

Falcon Timber Limited
Clock House,
Station Approach,
Shepperton,
Middlesex,
TW17 8AN

The version/revision stated on the front of this Field of Application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

11 Installation

11.1 General

This section considers the installation of direct types of frames and doorset. This section considers:

- the door frame and architrave installation position relative to the wall
- the fire stopping between the frame and the wall
- the fixing requirement including packers
- the requirements for door edge gaps
- the trimming of door edges

11.2 Door Frame Installation

The following table indicates the acceptable door frame installations.

Permitted Installations
Instances where the door frame and the wall of the same depth. Architraves must be fitted flush to both faces. The minimum door frame section size (width and depth) must be as per the requirements noted in this report – see section 7.
Instances where the wall thickness is greater than the door frame depth. Architraves must be fitted to both faces, fitted with a minimum 15mm overlap to the door gap, other than when the architrave abuts the wall.
Instances where the wall thickness is greater than the door frame depth – Split Frames Split frames are permitted to increase the depth of the frame to match the thickness of the wall such that architraves may be applied flush to both faces. Frame 1a is permitted to have a hardwood extension piece of minimum 43mm (w) and of up to 150mm (d) fitted using either a butt joint or tongue and groove joint, to the closing side of the frame applied with PVA cross linked adhesive as tested for lipping application. Frame 1b is not permitted to have an extension piece applied. Frame 2 & 3 are permitted to have a hardwood extension piece of the same material as the frame applied using either a butt joint or tongue and groove joint, to the closing side of the frame applied with PVA cross linked adhesive as tested for lipping application. The width of the extension piece must match the width of the frame and the extension piece must be no deeper than 150mm. In all instances both frame sections must be secured to the wall in accordance with section 11.5. Furthermore, the main frame section (from which the door is hung) must be constructed to at least the minimum door frame section size (width and depth) & density as per the requirements noted in this report – see section 7.

Architraves requirements are documented in the firestopping section of this report.

11.3 Firestopping

The firestopping requirements between the back of frame and wall are dependent on the gap size between the substrates and the test evidence supplied to support this field of application. The table below provides the requirements based upon the gaps size.

Gap (mm)	Requirement	Test Evidence
0 – 2	Not permitted. Gaps must be a minimum of 2mm to the entire perimeter to accept an appropriate quantity of fire stopping material.	N/A
2 – 13	Gap must be must be tightly packed with mineral fibre and sealed on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1 for 120 minutes integrity. Hardwood architraves of a minimum 18mm thick x 70mm wide must be fitted to both faces, fitted with a minimum 25mm overlap to the door frame.	WF504475
14 – 20	Gaps between 14 and 20mm must be tightly packed with mineral fibre and filled on both faces with a minimum of 20mm depth of intumescent mastic that has demonstrated 120 minutes integrity to BS 476: Part 22: 1987 or BS EN 1634-1 (between masonry and timber or mineral composite). The frame to structural opening gap must be covered with a minimum of 18mm thick hardwood architraves overlapping at least 15mm each side.	This installation detail has been assessed based on the increase in depth of the tested intumescent solution above.

Note:

It is permitted to install the door without architraves based on CFR1504141 (or with architraves that do not meet the 15mm overlap requirement based upon RF12178) providing the gap between the frame and the structural opening is suitably sealed with a proven linear gap seal that meets the following provisos:

1. The sealing medium has been tested at the required thickness and depth and has demonstrated 60, 90 or 120 minutes integrity, as appropriate, to BS 476: Part 22: 1987 or BS EN 1634-1 (between masonry and timber or mineral composite) &
2. The sealing medium was tested without architrave or any other capping material.

11.4 Packers

Packers must be timber or Tectonite of equal density to the frame or hardwood with a density no less than 640kg/m^3. The packers must be cut back in all instances to allow for an appropriate depth of fire stopping to be applied as detailed in section 11.3.

11.5 Wall types, Structural Opening & Fixity

For walls that remain rigid during fire exposure (brickwork or blockwork, for example) the opening should be square, plumb and provide a flat surface for installation of the doorset.

It is not permitted to install the WSCP doorset design within flexible wall types such as steel and timber stud partitions.

The WSCP doorset design has been tested within rigid supporting constructions consisting of blockwork and is therefore permitted to be installed within masonry supporting constructions with at least the same level of fire resistance for the doorset design.

It must therefore be capable of staying in place and intact for a minimum of 60, 90, or 120 minutes (as appropriate to the fire resistance of the doorset).

The supporting construction must also be a suitable medium to permit adequate fixity.

For single leaf doorset without sidepanels, the frame jambs only are to be fixed to the supporting construction using 5no. steel fixings at 600mm maximum centres and maximum of 200mm from corners. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 50mm. It is not necessary to fix the frame head, although packers must be inserted.

For all other configurations of doorset, the upper horizontal framing section abutting the structural opening must also be secured to the wall using a minimum of 2no. steel fixings at 600mm maximum centres and maximum of 500mm from corners. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 50mm.

In all instances the fixing position must be such that it provides adequate restraint to the element of construction throughout the exposure to fire. This may therefore sometimes necessitate a twin line of fixings.

11.6 Post Production (Onsite) Leaf Size Adjustment

The WSCP range of doorsets may be altered as follows:

Leaf Size Adjustment Specification	
Element	Reduction
Lipping	The post-production lipping thickness may be reduced by 1mm for fitting purposes, providing that the door gaps and intumescent conditions remain as required by this assessment and the minimum limitation in terms of lipping thickness is still maintained