

Hemsec Fire Rating Matrix



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Thickness	FR60	FR30	Integrity (E)	Insulation (I)	Grade	Joint Stitching	Fixing Size	Horizontal / Vertical Orientation	Intumescent Mastic Required	Maximum Unsupported Length Fire Test Condition (for structural spans see relative datasheet)
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Walls (LPCB LPS 1208 Cert:558a)

50mm & 80mm	N/A									
100mm	✗	✓	75 mins*	39 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m
125mm	✗	✓	75 mins*	39 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m
150mm	✗	✓	75 mins*	39 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m
175mm	✓	✓	76 mins*	62 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m on FR60 & 7.5m in FR30 condition
200mm	✓	✓	76 mins*	62 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m on FR60 & 7.5m in FR30 condition

Ceilings (LPCB LPS 1208 Cert:558a)

50mm & 80mm	N/A									
100mm	✗	✓	79 mins	48 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	N/A	✗	7.5m
125mm	✗	✓	79 mins	48 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	N/A	✗	7.5m
150mm	✗	✓	79 mins	48 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	N/A	✗	7.5m
175mm	✓	✓	80 mins*	69 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	N/A	✗	4.5m on FR60 & 7.5m in FR30 condition
200mm	✓	✓	80 mins*	69 mins	N/A	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	N/A	✗	4.5m on FR60 & 7.5m in FR30 condition

* No Integrity failure - Test stopped at sponsors request.

LPCB 1208 Notes:

- LPS 1208. Issue 2.1. LPCB fire resistance requirements for elements of construction used to provide compartmentation.
- LPS 1208 details methods of tests and performance requirements in order to satisfy the fire resistance requirements for compartmentation given in the LPC Design Guide for the Fire Protection of Buildings. BS476: Part 22: 1987 is the test that underpins Cert 558a, for Non-loadbearing compartment walls and partitions.

External and Carrier (LPCB LPS 1181 Part 1 Cert:558b)

50 - 175mm Wall Panels	✗	✗	n/a	n/a	EXT-B	150mm centres to internal face	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	n/a
50 - 175mm Roof Panels	✗	✗	n/a	n/a	EXT-B	150mm centres to internal face	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	n/a
100 - 175mm Wall Panels	✗	✓	60	30	EXT-A30	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	4.0m
125 - 175mm Roof Panels	✗	✓	52	40	EXT-A30	150mm centres both sides	Stainless Steel Self Drilling Stitching Screws 6.3mm x 25mm	Both	✗	7.5m

LPCB 1181 Notes:

- LPS 1181 Part1: Issue 1.2. Series of fire growth tests for LPCB approval and listing of construction product systems.
- Part one details requirements and tests for built up cladding and composite panel systems for use as the external envelope of buildings, in compliance with the LPC Design Guide for the Fire Protection of Buildings.
- Composite panels are subjected to the Wall and Ceiling test (the 'reaction to fire' test), commonly known as the crib test.
- Grade EXT-A: A product that satisfies the requirements for both 'fire resistance' (e.g. LPS1208) and 'reaction to fire' test (i.e. LPS1181 Part 1). This is further sub-divided in appendix B of LPS 1181 Part 1.
- Grade EXT-B: A product that satisfies the 'reaction to fire' requirements (LPS1181 Part1) only.

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Internal & External Walls* (Approved to EN 13501-2: 2016)

Thickness	EI60	EI45	EI30	Integrity (E)**	Insulation (I)**	Joint Stitching	Fixing Size***	Horizontal / Vertical Orientation	Intumescent Mastic Required	Sealant Type	Sealant Size	Sealant Location	Maximum Unsupported Length Fire Test Condition (for structural spans see relative datasheet)
50mm, 80mm & 100mm	N/A												

Extended Field of Application EN 15254-5: 2009

125mm, 150mm & 175mm	×	×	✓	144 mins	43 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Vertical	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	12.0m (to EXAP EN 15254-5: 2009****)
200mm	×	✓	✓	181 mins	64 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Vertical	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	12.0m (to EXAP EN 15254-5: 2009****)

Direct Field of Application EN 1364-1: 2015

125mm, 150mm & 175mm	×	×	✓	144 mins	43 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Vertical	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	4.0m (direct field of application EN 1364-1: 2015)
	×	×	✓	144 mins	43 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Horizontal	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	3.0m (direct field of application EN 1364-1: 2015)
200mm	✓	✓	✓	181 mins	64 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Vertical	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	4.0m (direct field of application EN 1364-1: 2015)
	✓	✓	✓	181 mins	64 mins	150mm centres both sides	SFS Intec. SX2/8-D9-4.8x22-A4-RAL 9010. Stainless Steel 24mm Long (22mm Thread) x 4.8mm Ø	Horizontal	✓	Dow Corning 700 Firestop	3mm Ø Bead	In both Female Joints	3.0m (direct field of application EN 1364-1: 2015)

* For Hemsec external wall applications please see specific Classification Report(s) section 3.3 Field of Application for product / facing limitations; available from Hemsec upon request.

** EN 13501-2 classifies the following time periods for Integrity(E) and/or Insulation(I): 15, 30, 45, 60, 90, 120. For other information including radiation periods (W) please contact our Technical Department.

*** RAL 9010 colour may be preferable for use on white panel facings. Alternatively other RALs are available, or a standard Stainless finish can be used to match the colour of the panel facings.

**** Extended Field of Application is abbreviated to EXAP.

FM Approval Class number 4880 – Interior Use Only Walls & Ceilings

(Standard for Class 1 fire rating of building panels or interior finish materials)

Product Name	Thickness	Minimum Panel Length ft (m)	Height Restriction ft (m)	Min. Interior Face Thickness inch (mm)	Min. Exterior Face Thickness inch (mm)	Face Material *
Hemsec Control 30	100mm, 125mm, & 150mm	8 (2.43)	Maximum 30 (9.1)	0.02 (0.5)	0.02 (0.5)	Steel
Hemsec Control 60	175mm & 200mm	8 (2.43)	Maximum 30 (9.1)	0.02 (0.5)	0.02 (0.5)	Steel

* Optional pre-finished coatings/paints.

Interior Installation Requirements:

Flashing: Minimum 38 x 38mm (1.5 x 1.5) flashing fastened maximum 300mm (11.8in.) on center.

Sealant/Gasket/Caulking: None.