Elite Wall Systems

Technical Guidance Document

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euroclad group

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Elite Wall Systems materials – Reaction to fire to BS EN 13501-1

Performance in terms of Reaction to fire classifies products as A1, A2, B, C, D, E or F (with class A1 being the highest performance and F being the lowest) in accordance with BS EN 13501-1.

The classes of reaction to fire performance of A2, B, C, D and E are accompanied by additional classifications related to the production of smoke (s1, s2, s3) and/or flaming droplets/particles (d0, d1, d2).

See table 1, below for materials performances:

Table 1 **Standard Components**	**Material**	**BS EN 13501-1 classification**
Liner sheets & flashings	Coated steel – Polyester coated (with polyester backing coat)	**A1**
Quattro spacer system	Galvanised steel	**A1**
Insulation	Mineral wool or glasswool	**A1**
Outer sheet & flashings	Coated steel Colorcoat Prisma, Prisma Elements, Prisma Matt (with polyester backing coat)	**A1**
Outer sheet & flashings	Coated steel Colorcoat HPS200 Ultra (with polyester backing coat)	**C-s2, d0 #**
Components excluded from requirements for relevant buildings under Regulation 7(3)(h)	"Sealants, fixings & gaskets" ("gaskets" would include closure fillers).	**N/A**

Standard Elite wall systems 50-60 utilising standard coated steel external sheet options comply with the requirements for buildings other than those described in Regulation 7(4) & 7 (12.10) without the need for testing to BS EN 8414 and classification under BR135 via B4, 12.3 option "a.", following the provisions of paragraphs 12.5 to 12.9.

Aluminium coated sheets, breather membranes and separate VCL's are not standard specification components for Elite wall systems but fire rated options are available (should they form part of a modified system specification through consultation with Euroclad).

For buildings other than those described as "Relevant Buildings" in Regulation 7(4) - Note 2 of the table "Reaction to fire of external surfaces of walls" on page 2 can be referenced for HPS200 Ultra external sheet, if appropriate to the project. The content of the table is from - Approved Documents Part B Volume 1, table 10.1 & Volume 2, table 12.1. July 2019.

Appendix A: Boundary conditions & notes regarding HPS200 Ultra coated sheet

Reaction to fire performance of external surface of walls.

Source - Approved Documents Part B Volume 1, table 10.1 & Volume 2, table 12.1. July 2019

Building type	Building height	<1m from the relevant boundary	1m or more from the relevant boundary
"Relevant buildings" as defined in regulation 7(4)		Class A2-s1, d0(1) or better	Class A2-s1, d0(1) or better
Assembly & recreation	>18m	Class B-s3, d2(2) or better	From ground level to 18m: Class C-s3,d2(3) or better. From 18m in height and above: Class B-s3, d2(2) or better
	18m or less	Class B-s3, d2(2) or better	Up to 10m above ground level: ClassC-s3, d2(3) or better Up to 10m above a roof or any part of the building to which the public have access: Class C-s3, d2(3) or better(4) From 10m in height and above: no minimum performance
Any other building	> than 18m	Class B-s3, d2(2) or better	From ground level to 18m: Class C-s3,d2(3) or better. From 18m in height and above: Class B-s3, d2(2) or better
	18m or less	Class B-s3, d2(2) or better	No provisions

NOTES:
In addition to the requirements within this table, buildings with a top occupied storey above 18m should also meet the provisions of paragraphs 10.6 (Volume 1), 12.6 (Volume 2).
In all cases, the advice in paragraphs 10.4 (Volume 1) and 12.4 (Volume 2) should be followed.

1) The restrictions for these buildings apply to all the materials used in the external wall and specified attachments (see paragraphs 10.9 to 10.12 (Volume 1) & 12.10 to 12.13 (Volume 2) for further guidance).
2) Profiled or flat steel sheet at least 0.5mm thick with an organic coating of no more than 0.2mm thickness is also acceptable.
3) Timber cladding at least 9mm thick is also acceptable.
4) 10m is measured from the top surface of the roof.

Note that external walls may need fire resistance to meet the requirements of Approved Documents general provisions, Section 7 or Section 13.

Fire Resistance

Our built-up wall systems have continued to evolve and develop since our first system BS476 Part 22 fire test in 1985 and we are still engaged in regular testing programmes.

Elite wall systems have been extensively tested and assessed by LPCB, Warrington Fire, BRE and BM Trada.

Tests have been conducted on Elite wall systems to BS476 Part 22, BS EN1364-1: 2015, BS EN1363-1: 2012, LPS1181 and LPS1208.

The performances are summarised in our LPCB certification to LPS1181 and LPS1208 which is available to download from our website: https://www.euroclad.com/media/4040/lps1181-certificate-c879a-03-euro-clad.pdf

Installed in accordance with our Elite systems standard specifications and drawings with a minimum of 120mm insulation, coated steel liners and coated steel outer sheets, the systems are certified for up to 4 hours Integrity and 15 minutes Insulation (or 30 minutes Insulation when using Rockwool Cladding Roll and with stitched liner side laps).

Guidance in the event of queries can be sought from our Technical Department. Testing is ongoing and updates will be noted as soon as practically possible.

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