

Reaction to fire classification for protected/smoke shaft walls Interpretation of specific clauses within Approved Document B (AD. B)

Within Approved Document B Volume 1 and 2, 2019 edition (incorporating 2020 & 2022 amendments) – for use in England we have been made aware of a specific clause which is causing uncertainty on specification and compliance in relation to required chosen materials meeting a designated regulatory performance requirement.

The specific clauses in question relate to both AD. B Volume 1, requirement B1, clause 3.5 iii and AD. B volume 2, requirement B5, clauses 18.13 and 18.14. Stated clauses refer to the smoke shaft to be constructed from a class A1 material (in accordance with EN 13501 – Fire classification of construction products and building elements).

AD.B volume 1, requirement B1, clause 3.51 iii

- iii. The smoke shaft should be constructed from a class A1 material. All vents should either be a smoke leakage (S_a) rated fire doorset (see Appendix C, Table C1, item 2.e for minimum fire resistance) or fitted with a smoke control damper achieving the same period of fire resistance and designed to operate as described below. The shaft should be vertical from base to head, with a maximum of 4m at a maximum inclined angle of 30 degrees.

AD.B volume 2, requirement B5, clauses 18.13 and 18.14

- 18.13** Outlet ducts or shafts, including any bulkheads over them (see Diagram 18.1), should be enclosed in construction of class A1 rating and fire resistance at least equal to that of the element through which they pass.
- 18.14** Natural smoke outlet shafts should be separated from each other using construction of class A1 rating and fire resistance at least equal to that of the storeys they serve, where the shafts are either of the following.
 - a. From different compartments of the same basement storey.
 - b. From different basement storeys.

The confusion lies around whether the requirement of A1 (fire classification) refers to the lining materials only of the smoke shaft wall or is the complete structure of the smoke shaft, of which would include framing, internal boarding, insulation (if required) and designated finishing treatments, all of which will have their own respective product fire classifications.

Given the uncertainty of understanding and adopting the actual prescribed requirements we would advise that project designers and contractors seek confirmation from their respective project approving authority (fire consultants, assigned certifier and/or from the local building control) on acceptance for their project on whether the A1 fire classification refers to ensuring the smoke shaft is constructed using A1 fire classification material throughout or just to the smoke shaft lining.

GPDA members can be consulted for design advice, leading to providing solutions for both the scenarios above.



GPDA members

British Gypsum	www.british-gypsum.com	0115 945 6123
Etex	www.siniat.co.uk	0800 145 6033 or 01275 377789
Gyproc Ireland	www.gyproc.ie	ROI 1800 744480, NI 0845 3990159
Knauf	www.knauf.co.uk	08000 304 135

GPDA

The role of the Gypsum Products Development Association (GPDA) is to develop and encourage the understanding of gypsum-based building materials and systems. The Association provides a cohesive package of advice and information on all developments affecting the gypsum industry and communicates it to all aspects of the construction industry. Issues include the latest technical and product developments as well as training opportunities in the industry. Please check that you have the latest versions of our guidance notes by visiting www.gpda.com or email us on admin@gpda.com