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Safety Alert (SA04)

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Requirements for fire stopping and compartmentation

This guidance applies to England and Wales only

Approved Document B: Fire Safety defines a fire stop as *'a seal provided to close an imperfection of fit or design tolerance between elements or components, to restrict the spread of fire and smoke'.*

Fire stopping needs to attain the same fire resistance performance as the structural elements, and seals the junction of compartment walls and floors it abuts, to maintain the integrity of the compartment.

Fire stopping is fundamental to compartmentation. As such, care should be taken to ensure that the correct product is specified and installed to seal on top of the party/compartment wall and (if required) within the batten space of a tiled or slated roof to seal the void.

Within NHBC Standards, Chapter 7.2.16 states that mineral wool can be utilised for firestopping at this junction. However, 'mineral wool' can be made from either glass fibre, crushed rock, blast furnace slag or ceramic-based products *(with or without resin binders),* and each product will have different properties with regard to the resistance of heat and flame.

Approved Document B states that *'Fire resistance is a measure of one or more of the following:*

a) **Resistance to collapse** *(loadbearing capacity)*, which applies to loadbearing elements only, denoted **R** in the European classification of the resistance to fire performance.

b) **Resistance to fire penetration** *(integrity)*, denoted **E** in the European classification of the resistance to fire performance.

c) **Resistance to the transfer of excessive heat** *(insulation)*, denoted **I** in the European classification of the resistance to fire performance.'

Appendix B, Table B3 of Approved Document B identifies that the minimum requirements of the **R, E,** and **I** at a compartment wall junction should be 60 minutes. This is for any block of flats, dwellinghouses or other residential, up to a maximum above ground height of top floor of 18 m.

Please note
There is a minimum 30 minute fire resistance for buildings up to 5 m, but on a compartment wall that separates buildings this period is increased to 60 minutes.

It is imperative therefore that when procuring a *'mineral wool'* product to use as a fire stop on a party wall/compartmental wall *(either on top of the wall as a seal or within the batten void)*, the product achieves the fire resistance requirements of Approved Document B, and the contractor should satisfy themselves that the relevant test data is available to prove conformity to their clients. This should be done always remembering that the maintenance of the integrity of the compartment is paramount, so the fire rating of the solution should match the fire rating of the compartment line.

There are proprietary products available. If considering those solutions, seek test data according to EN 1366 part 4.

Please note:
In the absence of any manufacturer's data we would advise that the fire stop both above the party wall and within the batten cavity should be manufactured from stone wool rather than glass wool and achieve a minimum fire and heat resistance of 60 minutes.

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