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Fire precautions in hospitals

Guidance on the design for fire safety in hospitals in England and Wales is given in the Health Technical Memorandum 'Fire precautions in new hospitals' (HTM 81 [12]). In Scotland separate guidance for hospitals is given in the Technical Standards.

Because of the presence of bed patients special provisions must be made for escape and compartmentation. However, recommendations regarding external cladding are generally consistent with other guidance in support of building regulations. This section summarises some of the the main additional provisions that are applicable to the external envelope of hospitals. However, it is strongly recommend that reference be made to the relevant design guidance when specifying for hospital use.

5.1 The junction of compartment walls and floors with external walls

Where a fire resisting compartment wall, sub compartment wall or a protected shaft meets an external wall, HTM 81 recommends that a one metre-wide strip of fire resisting construction should be provided at the junction. The strip should have the same fire resistance as the compartment wall. This is done to reduce the potential for fire spread between compartments. In cases where sprinklers are installed on both sides of the compartment wall this requirement does not apply.

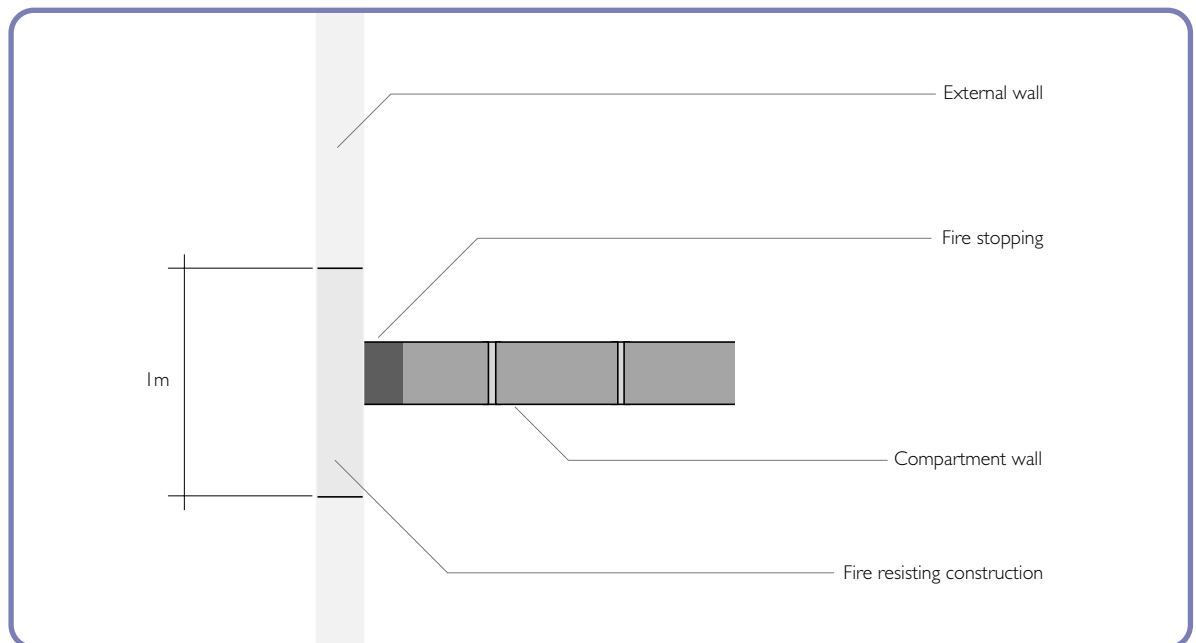


Figure 9. Plan of junction between compartment wall and external wall showing 1m strip of fire resisting construction

5.2 Fire spread across surfaces

To inhibit the spread of fire and smoke within the building provisions are made within HTM 81 to ensure that lining materials do not promote rapid flame spread. The main recommendations are summarised in Table 11.

Table 11. Surface classification for wall and ceiling linings

Location	Walls	Ceiling
Circulation spaces	Class 0	Class 0
Other rooms	Class 0	Class I
Small rooms (max 4m ²)	Class I	Class I

Junction of walls and low level roofs

Where a low level roof abuts an external wall, the roof is required to provide a minimum period of fire resistance of 60 minutes (integrity and insulation) for a distance of 3 metres from the wall. This recommendation is designed to prevent fire spread through the lower roof and into the upper levels of the building. This requirement need not be applied when sprinklers are installed throughout the relevant areas.

5.2.1. Space separation

HTM 81 provides a method for calculating unprotected areas for buildings up to 12m high. Above this height the guidance given in BRE report BR 187 [8] should be adopted. In other respects the requirements for limiting unprotected areas are similar to building regulations guidance.

5.2.2. Surfaces of external walls

The surfaces of external walls of hospitals are required to provide a surface spread of flame classification of Class 0 as defined in building regulations.

5.2.3. Surfaces of roofs

All hospital roof coverings are required to have a designation of AA, AB or AC when tested in accordance with BS 476; Part 3: 1958.