

KNOWLEDGE SHARE: 010

TITLE: ACTIVE FIRE/SMOKE CURTAIN STANDARDS
BUILDING TYPE: ALL BUILDINGS

OVERVIEW OF THE PROBLEM

Active fire curtains (operable fabric curtains) form part of the passive fire protection (PFP) strategy and are often poorly understood across the construction industry. Confusion commonly arises around the relevant standards, fire strategy requirements, product performance, and certification pathways. This leads to inappropriate product selection and misaligned specifications.



Figure 1: Images showing concertina Active Fire Curtain and a typical Active/Smoke Curtain

The construction industry often uses the term “smoke and fire curtains”, but this terminology should be avoided as it is misleading and can result in the specification of an incorrect product. Active fire curtains are designed to provide a defined level of fire resistance performance, and in some cases may also be required to achieve a specific smoke leakage performance.

Smoke-leakage-classified active fire curtains should not be confused with simple smoke curtains. Smoke curtains are manufactured in accordance with BS EN 12101-1:2005+A1:2006, typically do not include guide rails, and do not descend to floor level. Their function is to control and direct smoke movement towards smoke control systems; they do not provide any fire resistance (integrity) performance.

There are several products on the market with similar naming or reference conventions, yet they possess different performance characteristics. As a result, care should be exercised when developing fire strategies and specifications. These often combine properties from multiple, incompatible products leading to specifications that no single product can meet, consequent gaps in compliance and ultimately leaving elements of the fire strategy unachievable.

WHY IS THIS A PROBLEM?

Confusion over which product standard should be applied in the UK increased after third-party certification (TPC) for the specification of these products in accordance with BS 8524-1:2013 was discontinued in 2022, while TPC in accordance with BS 8524-2 (installation) remained available. This led many in the industry to assume that BS 8524 was no longer a valid standard and that the harmonised European product standard for doors, BS EN 16034:2014, should be used instead. The ASFP publication *Technical Guidance Document TGD21* explains the relationship between the BS 8524 series of standards and BS EN 16034 and related European standards.

RECOMMENDATIONS

The fire strategy and fire curtain specification should be reviewed as early as possible to ensure that all required performance criteria can be met by a single, commercially available product. Any necessary ancillary components, such as obstruction warning systems should also be identified at this stage.

Recently BSI has updated and reconfirmed both parts of the BS8524 series of product standards. In addition, third-party certification for both BS 8524-1:2025 (specification) and BS 8524-2:2025 (installation) are now available.

BS 8524-1:2025 is a demanding product standard, comprising nine annexes that must all be satisfied for compliance. The ASFP Black Book includes a useful comparison table to help determine which elements of the standard are most appropriate for the intended end use application of an active fire curtain.