The facts behind BS 8524 and BS EN 16034 in the UK fire curtain industry

In recent months, the UK fire curtain industry has been mired in confusion and opportunistic marketing tactics that misrepresent the facts. This situation arose following the International Fire Consultants (IFC) withdrawal from BS 8524-1 in June 2023. Unfortunately, some manufacturers and resellers in the UK have exploited this moment to propagate misleading claims designed to enhance their sales.

At A1S, we are committed to providing safe, compliant, and high-quality fire curtain solutions. We have collaborated with reputable experts to review industry standards and provide clear, accurate information.

**The importance of BS 8524-1**

BS 8524 remains the definitive standard for fire curtains in the UK, offering specific testing and operational criteria not covered by BS EN 16034. Sweco, an independent consultancy specialising in building standards, reviewed the issue and concluded:

“It is our opinion that fire curtain products with valid third-party certification to BS 8524-1 remain valid beyond the 9 June 2023 date of withdrawal, subject to:

1. **No**changes made to the **design**or **manufacturing process**since certification issue.
2. The manufacturer **must continue to be ISO 9001** (or equivalent) accredited for fire and smoke curtain manufacture and evidence this.
3. Certification date current and set for a future expiration (many valid until 2025).

Sweco further emphasised that BS 8524 is the only standard specifically designed for active fire curtains. In contrast, BS EN 16034 is broader in scope, encompassing doors, shutters, and other barriers, many of which are not suitable for fire curtain applications.

Please review their full report here: https://www.sweco.co.uk/services/building-standards/control/fire-curtains/

**Clarifying the role of BS EN 16034**

The Association of Specialist Fire Protection (ASFP), the UK’s leading authority on passive fire protection, has also weighed in. Their guidance states:

“The update of TD21 clarifies the foreword in BS EN 16034 states “Users’ attention is drawn to the fact that fabric curtains tested in this standard only apply to the fire door sets fire text. This standard does not cover their operation deployment speeds, initiation devices or warning devices, etc. and as such should comply with BS 8524-1 and BS 8524-2.”

Their full guidance can be found here: <https://a1sgroup.com/blog/asfp-update-on-ukcace-marking-of-operable-fabric-curtains-fire-curtains>

BS EN 16034 is more relevant to the European market, where its focus on industrial doors and shutters aligns with specific needs. However, in the UK, most fire curtain applications are better served by BS 8524. This standard incorporates rigorous requirements, including cycle tests (500 cycles prior to fire testing per Annex E) and reliability tests for motor operation and material durability.

**Addressing misleading claims**

Despite the clarity provided by industry experts, misinformation persists. Some companies claim that BS 8524 is “dangerous” and poses a “risk” without substantiating evidence. To protect prospect buyers, A1S advises:

* Always request to see certification documents
* Ensure the documentation originates from a reputable notified body
* Conduct due diligence when specifying fire curtains

**A1S’s engagement with the OPSS**

The Office for Product Safety and Standards (OPSS) is a government body whose primary purpose is to protect people and places from Product related harm, ensuring consumers and businesses can buy and sell products with confidence.

A1S has engaged in extensive discussions with the OPSS and conducted a comprehensive review of all pertinent information and standards applicable to the UK market. Our findings reaffirm the critical role of BS 8524 in ensuring the safety and reliability of fire curtain products. BS EN 16034, while applicable under specific conditions, lacks key testing protocols such as cycle durability and elevated temperature motor reliability tests. This makes BS 8524 the superior choice for most UK applications, where rigorous performance criteria are essential to safeguarding people and property.

The OPSS has provided clear guidance, aligning with industry consensus from the ASFP, Sweco, and BSI, that fire curtain products with valid third-party BS 8524 certification remain compliant beyond the June 2023 withdrawal date, provided no design or manufacturing changes have occurred, ISO 9001 accreditation is maintained, and certifications are current. This clarity should guide all professionals involved in specifying, purchasing, or installing fire curtains in the UK.

The following points made by the OPSS were within our findings:

“There has been some uncertainty in the UK regarding the applicable operable fabric curtain standards in the UK. This was raised by [company name redacted] and we have carried out a review of the designated standards. Following a review of BS EN 16034 with regards to operable fabric curtain, this is currently our view of what is covered:

*“The Scope of BS EN 16034:2014 is such that the standard applies (specific exclusions excepted) to a vertical fire curtain if it is a fire resisting and/or smoke control product intended to be used in fire and/or smoke compartmentation and/or escape routes and it is:*

*i) intended for installation in areas accessible to people and mainly intended for giving safe access for goods and vehicles (accompanied or driven by persons), and is any type of doorset (industrial, commercial or garage), rolling shutter or operable fabric curtain, or*

*ii) used in retail premises and mainly to provide access of persons rather than vehicles or goods, and is either a rolling shutter or operable fabric curtain, or*

*iii) intended to be installed in areas accessible to persons, and mainly for giving safe access for persons, and which is one of a hinged or sliding pedestrian doorset, openable window or inspection hatch.*

*These are the specific circumstances for the designated standards to apply and would agree with what ASFP and BSI have been saying.”*

BS 8524 continues to cover 99% of applications within the UK and is expected to maintain this status. In contrast, BS EN 16034 is primarily designed for the European market, which explains the limited applications mentioned earlier. Fire curtains are rarely used for goods entrances, as fire shutters are typically preferred due to the specific environmental conditions. While fire curtains can be employed in retail settings, they are not suitable for doorways that experience constant use. This scenario would require the curtain to function like a standard door, being opened and closed hundreds of times daily. Since BS EN 16034 lacks a cycle test in its testing protocols, it poses a significant risk to use a curtain in such applications instead of a BS 8524 curtain, which has undergone a cycle test (500 cycles prior to fire testing as per Annex E).

16034 also does not have a testing method for

* **Annex D (normative) Test method for barrier assembly reliability and response time and the durability of materials**
* **Annex G (normative) Test method for the reliability of motor operation at elevated temperatures**

**Addressing companies without Part 1 and Part 2**

Since IFC made their withdrawal from BS 8524-1 in June 2023, companies in the industry have taken this as an opportunity to wrongly state that they have both BS 8524 Part 1 and BS 8524 Part 2.

The guidance given from industry professionals in the Industry OPSS, City of London Building Control, SWECO and ASFP with many others is that:

*“fire curtain products with valid third-party certification to BS 8524-1 remain valid beyond the 9 June 2023 date of withdrawal, subject to:*

1. ***No****changes made to the****design****or****manufacturing process****since certification issue.*
2. *Manufacturer****must continue to be ISO 9001****(or equivalent) accredited for fire and smoke curtain manufacture and evidence this.*
3. *Certification date current and set for a future expiration (many valid until 2025).*

*BS 8524 remains the only product specific test standard relevant to active fire curtains.*

*As such ASFP would point out that BS EN16034 and BS 8524 are not conflicting standards, but complimentary standards. It is recommended that where compliance with BS EN16034:2014 is mandated, this should still be augmented with certification to BS8524-1 and BS8524-2.*

*Designers and Specialists specifying fire curtains should carefully examine the documentation accompanying the products to ensure that it originates from a reputable Notified Body rather than the manufacturer. Therefore, we advise designers to conduct due diligence and scrutinise the documentation.”*

When a company claims to be certified or tested to BS 8524, it's important to clarify this fact. The company should, and in most cases will, provide you with the appropriate certification. If they are unable to produce a reliable certificate, it may be due to them ‘self-certifying’ which is a misleading claim to being BS 8524 certified.

**Setting the standard**

At A1S, we take pride in manufacturing fire curtains that meet the highest standards. Unlike some competitors who import or resell uncertified products, our curtains undergo stringent quality checks in our UK factory. We welcome industry professionals to visit our UK manufacturing facilities and witness firsthand our manufacturing process.

The UK market relies on accurate and reliable information to ensure safety and compliance. The guidance from the OPSS, ASFP, and other authoritative bodies reaffirms the importance of BS 8524. Despite some companies anticipating validation of their claims, this has not materialised – a fact that is often disregarded. However, the market is beginning to reflect this shift towards transparency and accountability, with RIBA CPDs being withdrawn due to inaccuracies and fire engineers revisiting specifications that have been modified.