SPECIFICATION

FIREMASTER® A1

ACTIVE FIRE CURTAIN BARRIER ASSEMBLIES

In accordance with:

BS 8524-1
BS EN 1634-1
BS 5234-2
BS EN 14600
BS EN 13501-2
BS EN ISO 1716
BS EN 13501-1+A1
BS EN ISO 14184-1
BS EN 12101-10

Period of Fire Resistance:

180 minutes (3 hours) integrity (single)
120 minutes (2 hours) integrity (overlapped)

Period of Radiation:

37 minutes <15kW/m^2 (single)
51 minutes <15kW/m^2 (overlapped)

Classification:

Single: E180 EW30 C0 Grade 1
Overlapped: E120 EW30 C0 Grade 1

Certification:

Complete barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.

Complete barrier assemblies are certified with an independent accredited certification body operating an accredited UKAS scheme for installation, commissioning and servicing.

Product Name and Model:

FireMaster® A1 active fire curtain barrier assemblies

General description:

An electrically operated FireMaster® A1 active fire curtain barrier assembly used to form a virtually continuous barrier as a fire separating element.

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FireMaster® A1 active fire curtain barrier assemblies comprise a woven steel and glass fabric wound on to a steel roller, powered by an internal 24V dc electric motor, enclosed within a 1.2 mm steel box.

A bottom bar is fitted to the bottom edge of the curtain providing tension to the curtain with sufficient weight for the curtain to 'fail-safe by gravity'.

The 24V motor contains an electromagnetic brake to arrest motion of the curtain when in the open position.

FireMaster® A1 active fire curtain barrier assemblies have been tested to the requirements of BS EN 14600:2005 for 'Durability of Self-Closing' (500 cycles on primary power and an additional 50 cycles using back-up power; closing speed of 0.08m/s).

FireMaster® A1 active fire curtain barrier assemblies have been tested to the requirements of BS EN 1634-1:2014 for 'Fire Resistance' (180 minutes integrity).

FireMaster® A1 active fire curtain barrier assemblies have been tested to the requirements of BS EN 1634-1:2014 for 'Radiant Heat Flux' (30 minutes).

Operation:

FireMaster® A1 active fire curtain barrier assemblies commence movement upon initiation of alarm or power or system failure, and fully deploy to the fire operational position within the range of velocities of 0.06 m/s to 0.15 m/s using the unique VarioSpeed™ function.

Operating speeds are site adjustable without altering the bottom bar mass. Speeds may be dictated by those authorities having jurisdiction for 'safety in use' according to the location, nature or function of each unit.

In the event of a mains supply power failure, the curtain is retained in the open position for a pre-determined period (nominally 30 minutes), using battery back-up power. At the end of the period, the Barrier assembly will deploy.

Curtain Material:

The main curtain fabric type is EFP™ A1, which is a stainless steel wire reinforced glass fabric fire barrier. It has an area weight of 665g/m^2 -5% +10%.

The curtain fabric offers dimensional stability and is non-combustible to BS EN 13501-1 + A1– Reaction to Fire.

The fabric has passed testing to BS EN 1634-1, BS EN 1363-1 and BS EN 1362-2.

The fabric has passed testing to BS EN ISO 1716 (Determination of the Heat of Combustion for Building Products)

The fabric has passed testing to BS EN 13823 (Reaction to Fire Tests – Single Burning Item)

The fabric has passed testing to BS 6853 (Methods for measuring smoke density)

The fabric has passed testing to HSG 248 (Analysis of Material for the presence of Asbestos)

The fabric has passed testing to BS EN 14184-1 (Textiles – Determination of Formaldehyde – Part 1: Free and hydrolysed formaldehyde (water extraction method)

The fabric has a Classification of Reaction to Fire Perfromance in accordance with EN 13501-1:2007 +A1:2009 of 'A1'.

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Optional Extras:

- Voice warning:

  Audio or spoken multi message facility when mains or emergency power is available.
- Beam protection and obstruction warning:

  A beam detector, with delay timer which will sound in the event of any obstruction being placed in the barrier drop line when mains or emergency power is available.
- Visual alert system:

  Light warning system when mains or emergency power is available.
- Split drop delay:

  To partially deploy to pre-determined level to permit escape, and initial smoke containment. After delay fully deploys to its fire operational position when mains, or emergency power is available.
- Emergency retract:

  Touch button retract facility for multi-escape and emergency service ingress/egress when mains or emergency power is available.

Manufacturers:

Subject to compliance with all requirements set out in this specification, manufacturers offering products may be incorporated into the work are limited to the following:

Coopers Fire Limited, Ignis House, Houghton Avenue, Waterlooville Hampshire, PO7 3DU, United Kingdom. Tel +44 (0)23 9245 4405

Email: sales@coopersfire.com, Web: http://www.coopersfire.com

Warranty:

The manufacturer shall submit a written warranty for a period of one (1) year. If any part of the works of this section, including design, fabrication or installation are sublet to any party, such party shall provide a collateral warranty equivalent to the warranty.

Product certification, performance and/ or testing:

- FireMaster® A1 active fire curtain barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.
- FireMaster® A1 active fire curtain barrier assemblies have been tested for fire resistance to BS EN 1634-1, as required by BS 8524-1. The Barrier assembly achieved 120 minutes Integrity and 30 minutes Radiation.
- FireMaster® A1 active fire curtain barrier assemblies have been tested for impact to BS 5234-2 as required by BS 8524-1
- FireMaster® A1 active fire curtain barrier assemblies have been tested for reliability, durability and self-closing to BS EN 14600 as required by BS 8524-1
- FireMaster® A1 active fire curtain barrier assemblies have been tested for gravity fail-safe as required by BS 8524-1

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- Motor(s) used within FireMaster® A1 active fire curtain barrier assemblies have been tested for operation at temperatures of 400 °C as required by BS 8524-1
- The fabric used in the FireMaster® A1 active fire curtain barrier assemblies have been tested to BS EN ISO 1716
- The fabric used in the FireMaster® A1 active fire curtain barrier assemblies have been tested to BS 476 pt6 & pt7
- The fabric used in the FireMaster® A1 active fire curtain barrier assemblies have been tested to BS EN 13823
- The fabric used in the FireMaster® A1 active fire curtain barrier assemblies have been tested to BS 6853
- The fabric used in the FireMaster® A1 active fire curtain barrier assemblies have been classified as 'A1 to EN 13501-1

Approving standards:

The following standards apply to this product:

- BS 8524-1, Specification for active fire curtain barrier assemblies
- BS EN 1634-1:2008, Fire resistance and smoke control tests for door, shutter and, openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows
- BS EN 1363-1:2012, Fire resistance tests – Part 1: General requirements
- BS EN 1363-2:1999, Fire resistance tests – Part 2: Alternative and additional procedures
- BS EN 13501-2:2007+A1, Fire classification of construction products and building elements. Classification using data from fire resistance tests, excluding ventilation services rating
- BS EN 14600:2005, Doorsets and openable windows with fire resisting and/ or smoke control characteristics. Requirements and classification
- BS EN ISO 1716:2010, Reaction to fire tests for products. Determination of the gross heat of combustion. (Calorific value)
- BS 476-6, Method of test for fire propoagation for products
- BS 476-7, Method of test to determine the classification of the surface spread of flame for products
- BS 6853: 1999 – Annex D.8.4, Methods for measuring smoke density
- BS EN 13823, Reaction to Fire Tests – Single Burning Item
- BS EN 13501-1:2007+A1:2009, Fire classification of construction products and building elements. Classification using test data from reaction to fire tests
- BS EN ISO 14184-1:2011. Textiles. Determination of formaldehyde. Free and hydrolised formaldehyde (water extraction method)
- BS EN ISO 9001:2015, Quality management system
- BS EN ISO 14001:2015, Environmental management system

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