

**SPECIFICATION**  
**COOPERS SMOKESTOP® CONCERTINA™**  
**DH60 ACTIVE SMOKE BARRIERS**

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**In accordance with:**

BS EN 12101-1+A1  
BS EN 1363-1  
BS EN 13501-4  
BS EN ISO 1716  
BS EN 13823  
BS EN 13501-1  
BS 476-6  
BS 476-7

**Period of Fire Resistance:**

60 minutes (1 hour) integrity

**Classification:**

DH60, A1

**Certification:**

Complete SmokeStop® Concertina™ DH60 active smoke barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.

Complete SmokeStop® Concertina™ DH60 active smoke barrier assemblies are certified with an independent accredited certification body operating an accredited UKAS scheme for installation, commissioning and servicing.

**Product Name and Model:**

Coopers SmokeStop® Concertina™ DH60 active smoke barrier

**General description:**

An electrically operated SmokeStop® Concertina™ DH60 active smoke barrier assembly used to form a virtually continuous barrier against smoke.

SmokeStop® Concertina™ DH60 active smoke barrier assemblies comprise a metallic fabric, fan-folded and retained in a metal tray, powered by an internal 24V dc electric motor, enclosed within a 1.2 mm steel box.

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

The edges of the curtain are retained inside side guides, providing pressure resistance of 20Pa.

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

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SmokeStop® Concertina™ DH60 active smoke curtain barrier assemblies have been tested to the requirements of EN 12101-1, Annex B for 'Reliability and response times' (1000 cycles on primary power and an additional 50 cycles using back-up power; closing speed of 0.07m/s).

The SmokeStop® Concertina™ DH60 active smoke curtain barrier assemblies have been tested to the requirements of EN 12101-1 for 'Temperature/time resistance' (60 minutes integrity).

The fabric used in the SmokeStop® Concertina™ DH60 active smoke curtain barrier assemblies have a Reaction to Fire Classification of 'A1'.

#### **Operation:**

SmokeStop® Concertina™ DH60 active smoke 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.

#### **Fabric**

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<sup>2</sup> -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 476-6 (Method of test for fire propagation for products).

The fabric has passed testing to BS 476-7 (Method of test to determine the classification of the surface spread of flame for products).

The fabric has passed testing to BS EN 1634-1.

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 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)).

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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](mailto: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:**

- Complete SmokeStop® Concertina™ DH60 active smoke barrier assemblies are CE Marked in accordance with EU Construction Products Directive (89/106/EEC)
- SmokeStop® Concertina™ DH60 active smoke barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.
- Complete SmokeStop® Concertina™ DH60 active smoke barrier assemblies have been fully tested to BS EN 12101-1:2005+A1:2006
- Motor(s) used within SmokeStop® Concertina™ DH60 active smoke barrier assemblies the above tests have been tested for operation at temperatures of 400 °C as required by BS 8524-1
- The fabric used within SmokeStop® Concertina™ DH60 active smoke barrier assemblies have been tested to BS EN ISO 1716

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- The fabric used within the SmokeStop® Concertina™ DH60 active smoke barrier assemblies have been tested to BS 476 pt6 & pt7
- The fabric used within the SmokeStop® Concertina™ DH60 active smoke barrier assemblies have been tested to BS EN 13823
- The fabric used within the SmokeStop® Concertina™ DH60 active smoke barrier assemblies have been tested to BS 6853

**Approving standards:**

The following standards apply to this product:

- BS EN 12101-1:2005+A1:2006, Smoke and heat control systems – Part 1: Specification for smoke barriers
- BS EN 1363-1:2012, Fire resistance tests – Part 1: General requirements
- BS EN 13501-4:2007+A1:2009, Fire classification of construction products and building elements. Classification using data from fire resistance tests on components of smoke control systems
- BS EN ISO 1716:2010, Reaction to fire tests for products. Determination of the gross heat of combustion. (Calorific value)
- BS EN 13823:2010, Reaction to fire tests for building products. Building products excluding floorings exposed to the thermal attack by a 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 476-6:1989+A1:2009, Fire tests on building materials and structures. Method of test for fire propagation for products
- BS 476-7:1997, Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products
- BS EN ISO 9001:2008, Quality management system
- BS EN ISO 14001:2004, Environmental management system