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Testing. Advising. Assuring.

**Title:**

The fire resistance performance of a specimen of double-acting, single-leaf doorset, tested in accordance with BS EN 1634-1: 2014

**Report No: 371593**



**Prepared for:**

**Consort Architectural  
Hardware Limited**  
29-31 Lower Loveday St,  
Birmingham  
B19 3SB

**Date:** 25<sup>th</sup> January 2017

**Notified Body No:**

**0833**



## Summary

**Objective** To determine the fire resistance performance of a double-acting, single-leaf steel based doorset, incorporating items of building hardware mounted within a high density rigid supporting construction, when tested in accordance with BS EN 1634-1: 2014.

**Test Sponsor** Consort Architectural Hardware Limited, 29-31 Lower Loveday Street, Birmingham, B19 3SB.

**Summary Of Tested Specimens** The doorset had overall dimensions of 2100 mm high by 1128 mm wide and incorporated a door leaf 2051 mm high by 1050 mm wide by 45 mm thick. The door leaf was of a galvanised mild steel, single skin construction nominally 1.5 mm thick and comprised a 25 mm<sup>2</sup> honeycomb core within the leaf. The door leaf was hung within a profiled 1.5 mm thick, galvanised mild steel frame on a Consort concealed floor closer and a Consort top pivot each referenced 'CFC543' and 'CFC543 DA' respectively. The door leaf also incorporated a brass Consort door viewer referenced 'CDV35'.

The door leaf incorporated various items of building hardware listed (Items 3 to 7) within the schedule of components.

Prior to testing, the doorset was subjected to 25 manually operated opening and closing cycles as specified in EN 14600: 2005.

### Test Results:

<b>Integrity performance</b>	Sustained flaming	260 minutes*			
	Gap gauge	260 minutes*			
	Cotton Pad	36 minutes			
<b>Insulation performance</b>	10 minutes				
<b>Radiation Performance</b>	5 kW/m <sup>2</sup>	10 kW/m <sup>2</sup>	15 kW/m <sup>2</sup>	20 kW/m <sup>2</sup>	25 kW/m <sup>2</sup>
	29 minutes	75 minutes	156 minutes	260 minutes*	260 minutes*

\* The test duration. The test was discontinued after 260 minutes.

**Date of Test** 3<sup>rd</sup> December 2016.

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## Signatories

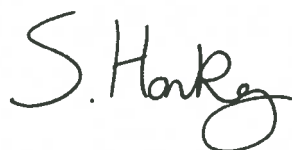
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\* For and on behalf of **Exova Warringtonfire**.

Report Issued

**Date** : 25<sup>th</sup> January 2017

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# Test Procedure

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<b>Introduction</b>	<p>The doorset is required to provide a fire separating function and was therefore tested in accordance with BS EN 1634-1: 2014 'Fire resistance tests for doors and shutter assemblies - Part 1: Fire doors and shutters'. This test report should be read in conjunction with that Standard and with BS EN 1363-1: 2012, 'Fire resistance tests - Part 1: General requirements' and BS EN 1363-2: 1999, 'Fire resistance tests - Part 2: Alternative and additional procedures'.</p> <p>Prior to testing, the doorset was subjected to 25 manually operated opening and closing cycles as specified in EN 14600: 2005.</p> <p>The specimen was judged on its ability to comply with the performance criteria for integrity and insulation, as required by BS EN 1634-1: 2014. The radiation from the doorset was measured in accordance with the requirements of BS EN 1363-2: 1999.</p>
<b>Fire Test Study Group/EGOLF</b>	<p>Certain aspects of some fire test specifications are open to different interpretations. The Fire Test Study Group and EGOLF have identified a number of such areas and have agreed Resolutions which define common agreement of interpretations between fire test laboratories which are members of the Groups. Where such Resolutions are applicable to this test they have been followed.</p>
<b>Instruction To test</b>	<p>The test was conducted on the 3<sup>rd</sup> December 2016 on behalf of <b>Consort Architectural Hardware Limited</b>, the sponsor of the test.</p>
<b>Test Specimen Construction</b>	<p>A comprehensive description of the test construction is given in the Schedule of Components. The description is based on a detailed survey of the specimen and information supplied by the sponsor of the test.</p> <p>The doorsets storage, installation, and test preparation took place in the test laboratory on 30<sup>th</sup> November and 3<sup>rd</sup> December 2016.</p>
<b>Installation</b>	<p>Exova Warringtonfire supplied the doorset week commencing 30<sup>th</sup> November 2016.</p> <p>The doorset was mounted within an aperture provided within a high density rigid supporting construction. Representatives of Exova Warringtonfire conducted installation on 2<sup>nd</sup> December 2016.</p>
<b>Sampling</b>	<p><b>Exova Warringtonfire</b> was not involved in any selection or sampling procedures of the specimens or any of their components.</p>
<b>Conditioning</b>	<p>The specimen's storage, construction, and test preparation took place in the test laboratory over a total combined time of 4 days. Throughout this period both the temperature and the humidity of the laboratory were measured and recorded as being within a range of from 17°C to 23°C and 73% to 89% respectively.</p>