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Title:

The Fire Resistance
Performance Of Two
Specimens Of Fully Insulated,
Single-Acting, Single-Leaf
Doorsets, Incorporating Various
Items Of Building Hardware In
Accordance With BS EN 1634-
1: 2008

Report No:

195144



Prepared for:

Eurospec Architectural
Hardware Limited
Stancliffe Street,
Mill Hill,
Blackburn,
Lancs.
BB2 2QR

Date: 15th October 2010

Notified Body No:

0833



Summary

Objective To determine the fire resistance performance of two single-acting, single-leaf timber based doorsets incorporating various building hardware, mounted within a low-density rigid supporting construction, when tested in accordance with BS EN 1634-1: 2008.

Test Sponsor Eurospec Architectural Hardware Limited, Stancliffe Street, Mill Hill, Blackburn, Lancs. BB2 2QR.

Summary of Tested Specimen For the purposes of the test, the doorsets were referenced Doorset A and Doorset B.

Both doorsets had overall dimensions of 2078 mm high by 1003 mm wide and incorporated a door leaf of overall dimensions 2032 mm high by 932 mm wide by 44 mm thick. Both door leaves comprised a graduated density chipboard core with hardwood lippings to the vertical edge. The door leaves were hung within a softwood door frame on three stainless steel Parliament hinges referenced 'H2N1446SSS' for Doorset A and three Triple Knuckle Butt hinges referenced 'H3N1102/13/SZP' for Doorset B. The hinges to Doorset A bedded onto a pad of 1 mm thick "Interdens" intumescent material. There was no intumescent material used to protect the hinges fitted to Doorset B.

Doorset A was fitted with an Easi-T Heavy Sprung Tubular Latch with lever handles referenced 'TLS5030SC' and 'CSL1220SSS' respectively, a Rim Cylinder Nightlatch referenced 'RCN8260SC', a Rim Cylinder Rollerball referenced 'RCB8260SC', top and bottom flush bolts referenced 'FBT1008SSS', and a Flush Pull Handle referenced 'FPH1004SSS'.

The Tubular latch was provided with a 1 mm thick layer of "Interdens" material wrapped around the body of the casing. The Rim Cylinder Nightlatch, the Rim Cylinder Rollerball and the top and bottom flush bolts were each bedded onto a pad of 1 mm thick "Interdens" intumescent material. The Flush Pull Handle was bedded onto acrylic intumescent mastic.

Doorset B was fitted with a DIN Latch with lever handles referenced 'DLE0055LSSS' and 'LRF1190SSS' respectively, a surface mounted shoot bolt referenced 'BBT1200SSS', a door viewer referenced 'SWE1010', a door knocker referenced 'SWE1020', a door knob referenced 'SWE1040', and a cabin hook referenced 'CAB1200SSS'.

There was no intumescent material used to protect the hardware fitted to Doorset B.

Each doorset was fitted with a surface mounted overhead door closer, mounted on the exposed face.

All latches, Rim Cylinder Nightlatch, Rim Cylinder Rollerball, top and bottom flush bolts, surface mounted shoot bolt and cabin hook were rendered disengaged for the duration of the test and were installed such that they opened towards the heating conditions of the test.

Prior to the commencement of the test, the door leaves were cycled open and closed 25 times as specified in EN 14600: 2005.

Signatories

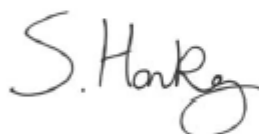


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* For and on behalf of Exova Warringtonfire.

Report Issued

Date: 15th October 2010

Performance Criteria and Test Results

Integrity It is required that the specimen retains its separating function, without either causing ignition of a cotton pad when applied, or permitting the penetration of a gap gauge as specified in BS EN 1634-1: 2008, or resulting in sustained flaming on the unexposed surface. These requirements were satisfied for the periods shown below:

	Doorset A	Doorset B
Sustained flaming	42 minutes*	36 minutes
Gap gauge	42 minutes*	36 minutes#
Cotton pad	42 minutes*	33 minutes

Insulation The mean temperature rise of the unexposed surface shall not be greater than 140°C and that the maximum temperature rise shall not be greater than 180°C (except on the door frame, where the maximum temperature rise shall not exceed 360°C). Insulation failure also occurs simultaneously with integrity failure as specified in BS EN 1634-1: 2008. These requirements were satisfied for the periods shown below:

	Doorset A	Doorset B
Insulation	42 minutes*	33 minutes

*The test duration. #Doorset sealed with mastic at sponsor's request. The test was discontinued after a period of 42 minutes.

Ongoing Implications

Limitations This report details the method of construction, the test conditions and the results obtained when the specific element of construction described herein was tested following the procedure outlined in BS EN 1363-1: 1999, and where appropriate BS EN 1363-2: 1999. Any significant deviation with respect to size, constructional details, loads, stresses, edge or end conditions other than those allowed under the field of direct application in the relevant test method is not covered by this report. Annex A of BS EN 1363-1: 1999, provides guidance information on the application of fire resistance tests and the interpretation of test data.

Because of the nature of fire resistance testing and the consequent difficulty in quantifying the uncertainty of measurement of fire resistance, it is not possible to provide a stated degree of accuracy of the result.