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Title:

The Fire Resistance Performance Of Three Specimens Of Floor Mounted 'Open-State' Cavity Barriers, When Tested Utilising The General Principles Of ASFP Technical Guidance Document - TDG 19: (July 2014) With Additional Guidelines From prEN1364-6: 201X

Report No:

389381 – Issue 2



Prepared for:

Siderise Insulations Ltd

Forge Industrial Estate
Maesteg
Bridgend
Mid Glamorgan
CF34 0AZ

Date:

19th February 2018

SIDERISE TEST REPORT EXTRACT

Summary

Objective A fire resistance test has been conducted to assess the ability of three horizontally orientated specimens of 'open-state' cavity barrier sealing systems, to reinstate the fire resistance of a pre-cast, aerated concrete floor when tested utilising the general principles of ASFP Technical Guidance Document - TDG 19: (July 2014) with additional guidelines from prEN1364-6: 201X.

Sponsor **Siderise Insulations Ltd**, Forge Industrial Estate, Maesteg, Bridgend, Mid Glamorgan, CF34 0AZ

Summary of the Tested Specimens For the purpose of the test the floor specimens were referenced A to C.
The section of floor had overall dimensions of 1875 mm long by 1500 mm wide by 600 mm thick and was made up of autoclaved aerated concrete lintels arranged to provide three 425mm wide by 1200 mm long apertures.

Specimen A comprised of a foil faced stone wool fibre cavity barrier referenced 'RH25 – XFS120 [REDACTED]' which had a stated density of 75 kg/m³. The barrier had overall dimensions of 400 mm wide by 1200 mm long by 120 mm thick and was butt jointed at approximately 250 mm from one end of the seal, jointed and taped with aluminium foil tape. The specimen included a 75 mm wide [REDACTED] intumescent strip which was fixed to one edge secured with plastic tape. Fixed to the supporting construction using three steel hangers. The specimen also included a layer of 90 mm thick Phenolic insulation which was fixed to one face of the supporting construction utilising metal insulation fixings.

Specimen B [REDACTED]

Specimen C [REDACTED]

Full details of the specimens and installation methods are given in the Schedule of Components.

Test Results

When tested to the temperature and pressure conditions of BS EN 1363-1: 2012, in conjunction with the requirements of ASFP Technical Guidance Document - TDG 19: (July 2014) with additional guidelines from prEN1364-6: 201X.

Technical failure of integrity of Specimens A to C would deem to have occurred at the start of the test due to the open void required for such seal types. However, following the expansion of the intumescent layer, full closure of the cavity of Specimens A and B was deemed to occur at 2 minutes 20 seconds. Full closure of the cavity of Specimen C was deemed to occur at 1 minute 24 seconds. Performance of the seals can then be measured from this point.

These requirements were satisfied for the periods shown below:

Product ref:
RH25-120/60 (425mm)

Specimen	Integrity (minutes)		Insulation (minutes)	Insulation (minutes) (suspended T/C's)
	Cotton Pad	Sustained flaming		
A	121*	121*	114	121*

* The test duration. The test was discontinued after a period of 121 minutes.

The failure criteria of each specimen was measured after the ventilated cavities had an effective seal by the means of the intumescent properties of the products and the findings were as follows:

Specimen	Cavity fully Sealed
A	2 minutes, 20 seconds

Date of Test 18th October 2017

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Permission applied for - May 2018