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**Title:**

The Fire Resistance Performance Of Four Specimens Of Floor Mounted 'Open-State' Cavity Barriers, When Tested Utilising The General Principles Of Draft Standard; ASFP Technical Guidance Document -TDG 19: (July 2014)

**Report No:**

382938



**Prepared for:**

**Siderise Insulations Ltd**

Forge Industrial Estate  
Maesteg  
Bridgend  
Mid Glamorgan  
CF34 0AZ

**Date:**

28<sup>th</sup> November 2017

SIDERISE TEST EXTRACT

## Summary

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**Objective** A fire resistance test has been conducted to assess the ability of four 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 Draft Standard ASFP Technical Guidance Document - TDG 19: (July 2014).

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

**Summary of the Tested Specimen** For the purpose of the test the floor specimens were referenced A to D.  
The section of floor had overall dimensions of 1950 mm long by 1500 mm wide by 600 mm thick and was made up of autoclaved aerated concrete lintels arranged to provide four 300 mm wide by 1200 mm long, long apertures.

**Specimens A and C:** [REDACTED]

**Specimens B and D:** [REDACTED]

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

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DRAFT

## Test Results

When tested to the temperature and pressure conditions of BS EN 1363-1: 2012, in conjunction with the requirements of Draft Standard ASFP Technical Guidance Document - TDG 19: (July 2014), the requirements of the standard were satisfied for the following periods.

Technical failure of integrity of Specimens A to D 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 Specimen A was deemed to occur at 1 minute 41 seconds, full closure of the cavity of Specimen B was deemed to occur at 1 minute 18 seconds, full closure of the cavity of Specimen C was deemed to occur at 2 minutes 45 seconds and full closure of the cavity of Specimen D was deemed to occur at 2 minutes 26 seconds. Performance of the seals can then be measured from this point. **These requirements were satisfied for the periods shown below:**

Ad hoc insulation criteria – The ad hoc measurement of insulation performance starts after the initial spike in temperature while the intumescent seal reacts. The temperature must drop below 180°C above ambient within the first five minutes of testing. The insulation performance time is then given when 180°C above ambient is reached for the second time.

Specimen	Integrity (mins)		Insulation (mins)	Insulation (mins) (suspended T/C's)
	Cotton pad	Sustained flaming		
D	72*	72*	68	72*

Product ref:  
 RH50-060/60 (300mm)

\*The test duration. The test was discontinued after a period of 72 minutes.

# Specimen blanked off to allow the test to continue.

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
D	2 minutes, 26 seconds

Date of Test

22<sup>nd</sup> May 2017.

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Permission applied for - May 2018