

Test Report

No. SDHL17030039830T

Date: Apr.01, 2017

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CHEUNG KEE CANVAS LTD
G/F, 352, RECLAMATION STREET, KOWLOON, HONG KONG.

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description : WELDING BLANKET
 SGS Ref. No. : AJFS1703000538FF
 Style / Item No. : CK WELDING BLANKET (ONE HOUR FIRE RETARDANT)
 Sample Receiving Date : Mar.15, 2017
 Test Performing Date : Mar.15, 2017 to Mar.23, 2017

Test Result Summary

Test(s) Requested	Result(s)	Comments
Fire Resistance Test of the Non-loadbearing Sample acc. to BS 476-20: 1987+AC 2014 Incorporating Amendment No. 1 Fire tests on building materials and structures — Part 20: Method for determination of the fire resistance of elements of construction (general principles) and BS 476-22:1987+AC 2014 Fire tests on building materials and structures — Part 22: Methods for determination of the fire resistance of non-loadbearing elements of construction.	Integrity: >60 min	/
For further details, please refer to the following page(s)		

Signed for and on behalf of
Shunde Branch
SGS-CSTC Co., Ltd.

Jack Yao
Approved signatory

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I. Test Conducted

Determine the fire resistance performance of the sample in accordance with BS 476-20: 1987+AC 2014 Incorporating Amendment No. 1. Fire tests on building materials and structures — Part 20: Method for determination of the fire resistance of elements of construction (general principles) and BS 476-22:1987+AC 2014 Fire tests on building materials and structures — Part 22: Methods for determination of the fire resistance of non-loadbearing elements of construction.

II. Test details

Test Results Summary					
No.	Test Items	Criterion	Results	Judgment	
1	Fire performance	Integrity (min)	Without resulting in sustained flaming on the unexposed surface in excess of 10s duration; Without causing the ignition of a cotton pad; Without permitting the penetration of a 6 mm gap gauge can be passed through the test specimen into the furnace and can be moved a distance of 150 mm along the gap; Without permitting the penetration of a 25 mm gap gauge can be passed through the test specimen into the furnace.	60min: The sample keep integrity performance	Integrity: >60min
		Insulation (min)	The average temperature raise of the unexposed surface is $\leq 140^{\circ}\text{C}$; or the highest temperature raise at any location (including the roving thermocouple) is $\leq 180^{\circ}\text{C}$.	No requirement	

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III. The sample and Installation

The nominal dimension of the tested specimen was 1970mm length by 1970mm width

The specimen was installed into a prepared aperture within a masonry wall using cement/sand mortar to form the test construction

Sample detail see figure 1



Figure 1 - Specimen construction

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IV. Test Results

The following data were recorded during the test:

- a) The actual mean furnace temperature/ time curve as well as the standard furnace temperature/ time curve, which were shown in Figure 3.
- b) The furnace pressures relative to laboratory atmosphere, which were shown in Figure 4.

A summary of the observations made on the general behavior of the specimen was given in Table 1.

The ambient air temperature in the vicinity of the test construction was 14°C at the start of the test with variation of 0°C during the test.

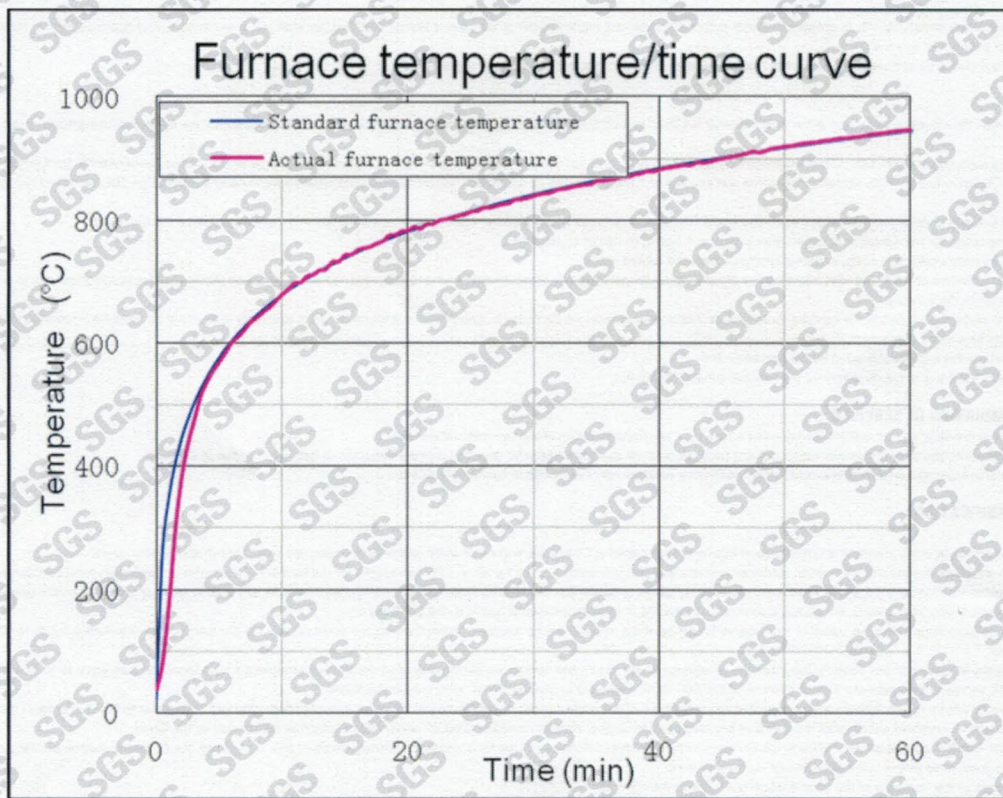


Figure 3 - Furnace Temperature/Time curve

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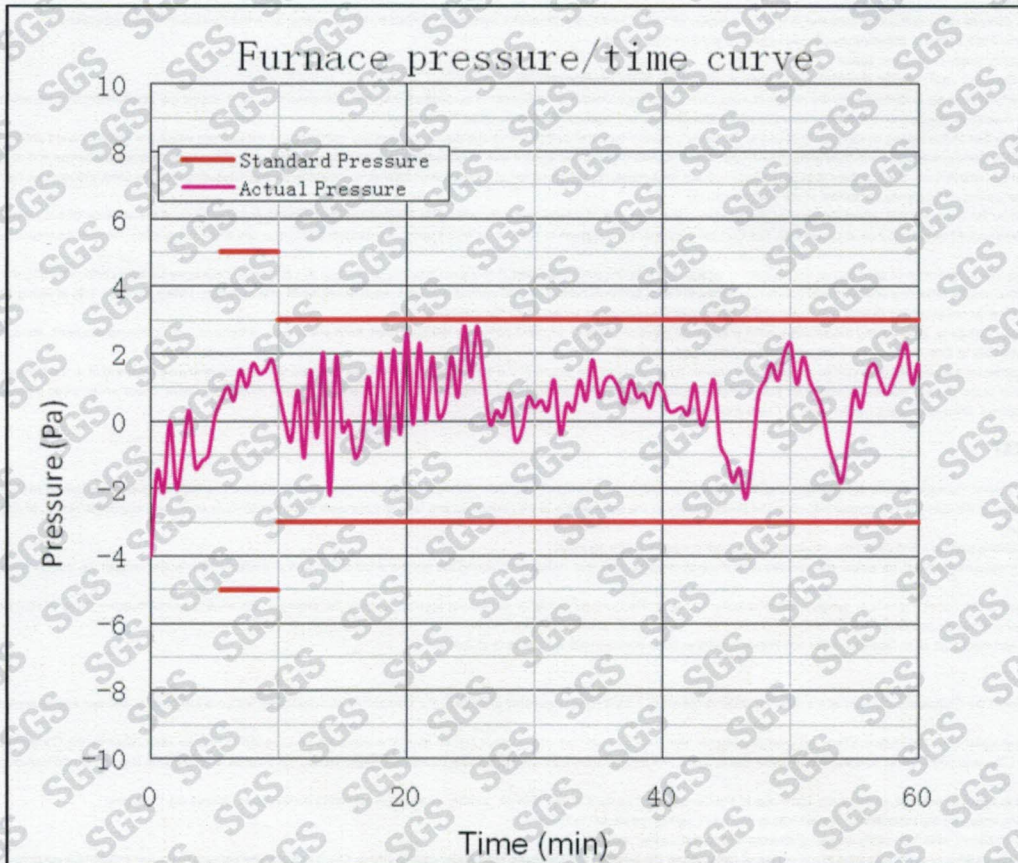


Figure 4 - Furnace pressure/Time curve

Table 1 Observations

Time (min:sec)	Test behavior
00:00	Furnace fired.
01:00	Smoke start to release.
60:00	The sample keeps integrity.
61:00	End test.

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V. Performance criteria (BS 476 Part 20:1987+AC 2014, Clause 10 & BS 476 Part 22:1987+AC 2014, Clause 5)

The performance of the specimen was assessed against the criteria for integrity and insulation in accordance with BS 476 Part 20:1987+AC 2014, Clause 10 & BS 476 Part 22:1987+AC2014, Clause 5.

The performance criteria for failure were given as follows.

Integrity: Failure is deemed to occur:

- a) When collapse occurs; or
- b) When sustained flaming for not less than 10s on the unexposed surface occurs; or
- c) For situations where the cotton pad is suitable, when flames and/or hot gases cause flaming or glowing of the cotton fibre pad; or
- d) For situations where the cotton pad is not suitable, when either:
 - i) the 6 mm diameter gap gauge can penetrate a through gap such that the end of the gauge projects into the furnace and the gauge can be moved in the gap for a distance of at least 150 mm; or
 - ii) the 25 mm diameter gap gauge can penetrate a through gap such that the end of the gauge projects into the furnace.

VI. Limitation

The results only relate to the behaviour of the specimen of the element of construction under the particular conditions of the test. They are not intended to be the sole criteria for assessing the potential fire performance of the element in use nor do they reflect the actual behaviour in fires.

The test results relate only to the specimen tested. The fire resistance performance of specimen of this design may change if different dimensions, different gaps, incorporating different components, or mounted within different wall construction.

The specimen was asymmetrical and was tested such that the specified surface towards the heating conditions of the test. The test result may not be appropriate to situation other side towards the heating conditions.

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Photo Appendix:



The specimen before test

Test specimen in 30min



The specimen after test

Remark: This test was subcontracted to SGS other qualified subcontractor.

End of Report

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