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Testing Laboratory
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XUANCHENG FUMEIDA NEW MATERIALS CO.,LTD

TEST REPORT

SCOPE OF WORK
AS 1530.8.1:2018+A1:2024 TESTING ON WOOD-PLASTIC COMPOSITE (WPC) BOARD, MODEL CO-EXTRUSION WPC BOARD

REPORT NUMBER
260206007SHF-001

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2026-02-11

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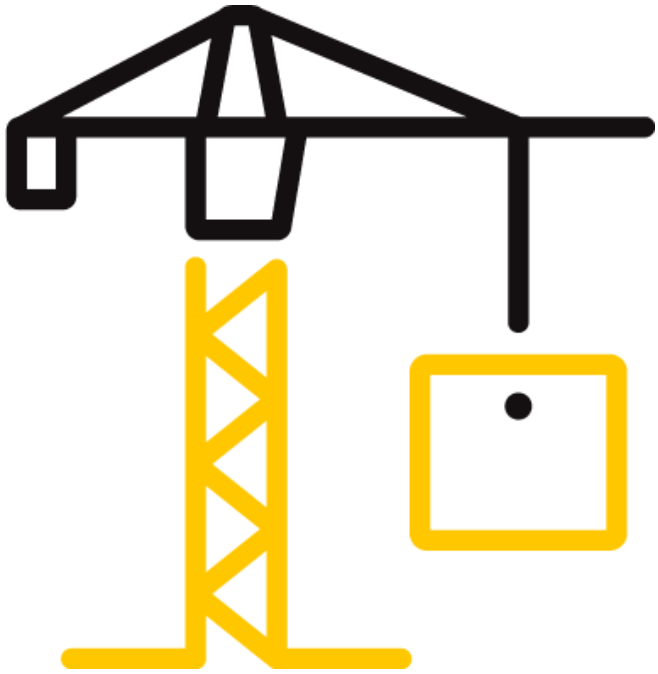

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REPORT ISSUED TO

XUANCHENG FUMEIDA NEW MATERIALS CO.,LTD
No.5 Meizigang Road, Xuanzhou Industrial Park, Xuancheng City, Anhui Province, 242000, China

SECTION 1

SCOPE

Intertek has conducted an evaluation for Xuancheng Fumeida New Materials Co., Ltd. to determine the simulated bushfire attack characteristics of Wood-Plastic Composite (WPC) board, model Co-extrusion WPC board. This evaluation began on February 6, 2026, and was completed on March 9, 2026. The test was conducted on February 11, 2026.

The test was conducted in accordance with AS 1530.8.1:2018+A1:2024 Methods for fire tests on building materials, components and structures, Part 8.1: Tests on elements of construction for buildings exposed to simulated bushfire attack-Radiant heat and small flaming sources, Section 21 SPECIFIC PROCEDURES FOR DECKS.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends six years after the test date. Test records, such as detailed drawings, datasheets, or other pertinent project documentation, will be retained for the entire test record retention period.

For INTERTEK B&C:

COMPLETED BY:	Jay Zhou	**REVIEWED BY:**	Jason Xu
TITLE:	Engineer–Building & Construction	**TITLE:**	Operation Supervisor – Building & Construction
SIGNATURE:	Jay Zhou	**SIGNATURE:**	Jason Xu
DATE:	2026-03-09	**DATE:**	2026-03-09

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SECTION 2
SUMMARY OF TEST RESULTS

Product Name: Wood-Plastic Composite (WPC) board
Model: Co-extrusion WPC board

The test assembly satisfied the performance requirements for the following bushfire attack level:

PERFORMANCE CRITERIA	RESULTS
Bushfire attack level	**BAL: AA19**

The test was discontinued after a period of 60 minutes according to the test method.

This report details methods of construction, the test conditions and the results obtained when the specific element of construction described herein was tested in accordance with test method of AS 1530.8.1.

SECTION 3
TEST METHODS

The specimen was evaluated in accordance with the following:

AS 1530.8.1:2018+A1:2024, *Methods for fire tests on building materials, components and structures, Part 8.1: Tests on elements of construction for buildings exposed to simulated bushfire attack-Radiant heat and small flaming sources, Section 21 SPECIFIC PROCEDURES FOR DECKS*

AS 1530.4:2014, *Methods for fire tests on building materials, components and structures, Part 4: Fire-resistance test for elements of construction*

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SECTION 4
MATERIAL SOURCE/INSTALLATION

Test specimen was provided to Intertek directly by the client and was not independently selected for testing. Test specimen was received at the Evaluation Center on February 6, 2026.

Manufacturer: Xuancheng Fumeida New Materials Co., Ltd.
Manufacturer Address: No.5 Meizigang Road, Xuanzhou Industrial Park, Xuancheng City, Anhui Province, 242000, China

A description of the test assembly is given in the table below. The description of the specimen is declared by the sponsor of the test. All values quoted below are nominal, unless tolerances are given.

ITEM NAME	SPECIFICATION
Decking board	Wood-Plastic Composite (WPC) board, model Co-extrusion WPC board Main component: 60 % wood powder + 30 % PE + 10 % additive Density: 1.24 g/cm^3 Width: 135 mm Thickness: 22.5 mm (measured) Length: 1800 mm (measured)
Decking screws	Type: Cross recessed tapping screw (Phillips head screw) Material: Stainless steel 304 Size: 3.9x25mm; 3.9x32mm
Decking clips	Type: Single-sided clips Material: 1.0mm thick Stainless steel 304 Size: 30 mm x 25 mm x 11 mm
	Type: Double-sided clips Material: 1.0mm thick Stainless steel 304 Size: 40 mm x 25 mm x 11 mm
Joist	Material: Aluminum alloy tube Section Size: 40 mm × 25 mm × 1.5 mm thick, 750 mm long
Fixing	Five 135mm-wide decking boards and one 39 mm-wide decking board were placed side by side on six strips of aluminum alloy joists. The decking boards were locked with Double-sided clips along board joists, and the outer edge of edge decking board was locked with Single-sided clips. Each Single-sided clip was secured to the joist by one 3.9x25mm Cross recessed tapping screw, and each Double-sided clip by three 3.9x25mm Cross recessed tapping screws. Additionally, seven 3.9x32mm Cross recessed tapping screws were applied on the two outermost and two middle joists to secure the decking boards. The spacing between

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	each joist was approx. 312 mm, and the spacing between each board was approx. 2 mm.

The sample ID number assigned by the test lab is S260206007SHF.001.

The drawings of Wood-Plastic Composite (WPC) board, model Co-extrusion WPC board and test wall construction can be found in Section 6 and 7 respectively.

The test was conducted in accordance with AS 1530.8.1:2018+A1:2024 Methods for fire tests on building materials, components and structures, Part 8.1: Tests on elements of construction for buildings exposed to simulated bushfire attack-Radiant heat and small flaming sources, Section 21 SPECIFIC PROCEDURES FOR DECKS.

The test assembly comprised a nominal 1800 mm wide × 750 mm deep × 450 mm high deck that was set within an 1800 mm wide × 250 mm deep recess formed within a nominal 3000 mm × 3000 mm wall system which met the minimum requirements as specified by AS 3959: 2018 (Incorporating Amendment Nos 1 and 2) for the specified exposure level. The joists of the deck were supported by steel supporting from the underside to get a 450 mm height. The underside of the deck is designed not to be enclosed at the request of the sponsor.

The wall system met the minimum deemed to satisfy requirements of AS 3959: 2018 (Incorporating Amendment Nos 1 and 2) for the prescribed exposure level and consisted of a wood framed wall system of 90 mm × 45 mm studs clad with one layer of 12 mm thick standard plasterboard and one layer of 6 mm cement board to the exposed side and the unexposed side respectively.

Prior to commencement of the test, the furnace and radiant panel were preheated to steady state conditions with the specimen shielded from the radiant heat. A calibration run was undertaken to establish the position and radiometer reading that corresponds to the required radiant heat flux at the surface of the specimen. Radiation distributions are adjusted so that the average of the four heat flux measurements at the quarter points were 0.75 + 25-15% of the value measured at the central position.

After the preheating and calibration run, positioning the test assembly in front of the furnace and radiant panel, and then two type AA burning cribs were placed at assigned rebate corner. The timer started. Temperatures within the wall and eaves were monitored using thermocouples and the data was recorded. Radiant heat flux was monitored using a radiometer and the data was recorded. Periodic observations were made of the fire exposed face and the non-fire exposed face of the test assembly during the simulated bushfire test.

Position for the measurement of internal maximum temperature and radiant heat flux were presented in the drawing of Section 8.

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SECTION 5
TEST RESULTS

Performance criteria		Time to failure (min)	Position of failure
A gap from the fire exposed face to the non-fire exposed face greater than 3 mm		No failure	—
Sustained flaming for 10 s on the non-fire side		No failure	—
Flaming on the fire-exposed side at the end of the 60 min test period		No failure	—
Radiant heat flux 365 mm from the non-fire side exceeding 15 kW/m^2		Not applicable	—
Mean and maximum temperature rises greater than 140 K and 180 K		Not applicable	—
Radiant heat flux 250 mm from the specimen, greater than 3 kW/m^2 between 20 min and 60 min		No failure	—
Mean and maximum temperature of internal faces exceeding 250°C and 300°C respectively between 20 min and 60 min after commencement of test		No failure	—
Flaming of deck assembly extends more than 500 mm in any direction from the rear and side walls		No failure	—
Crib class	AA	Peak heat flux	19 kW/m^2

The test specimen therefore satisfied the applicable performance criteria of **BAL: AA19.**

A full set of test data is included in Section 9, and photographs have been presented in Section 10.

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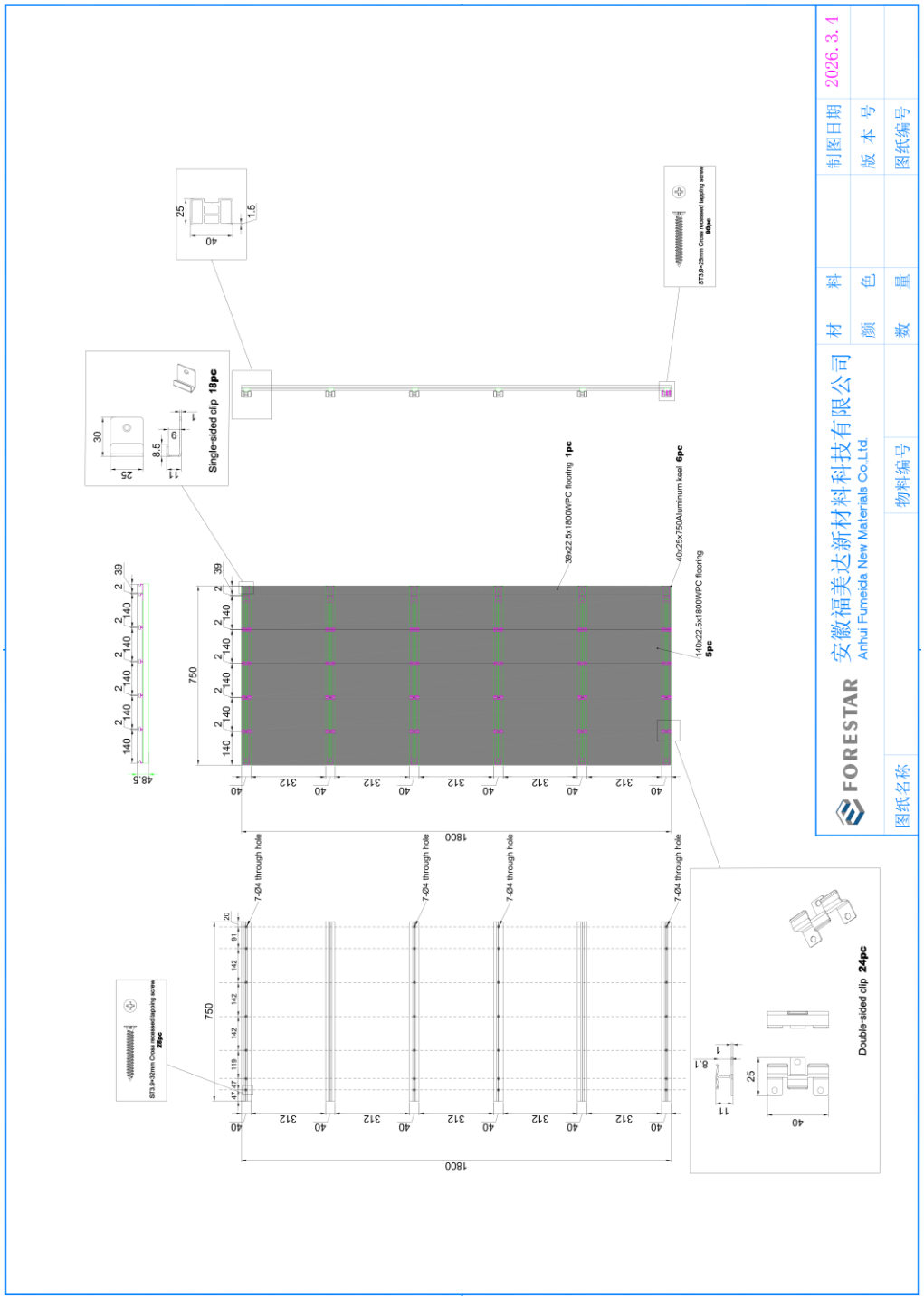
SECTION 6

TEST SAMPLE DRAWINGS



Dimension drawing of the test specimen

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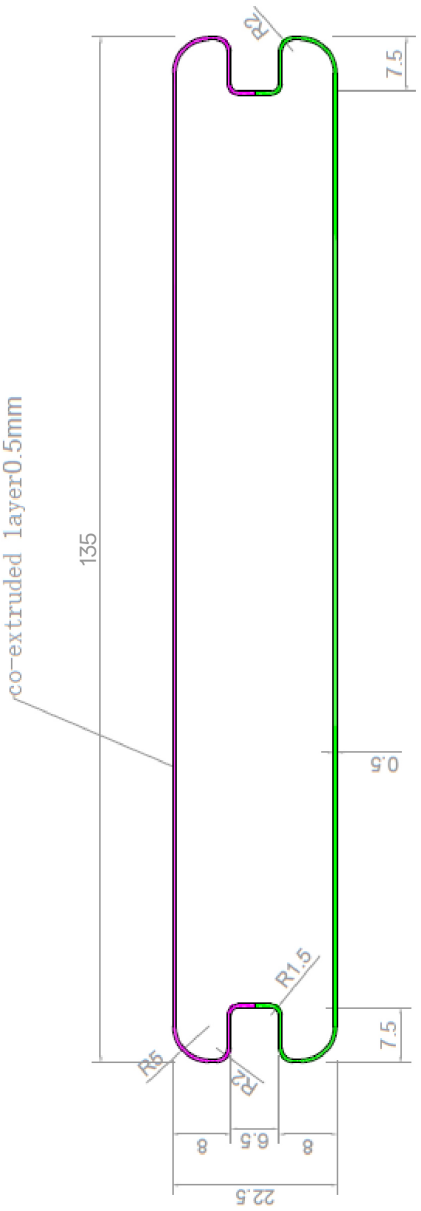

Deck profiles

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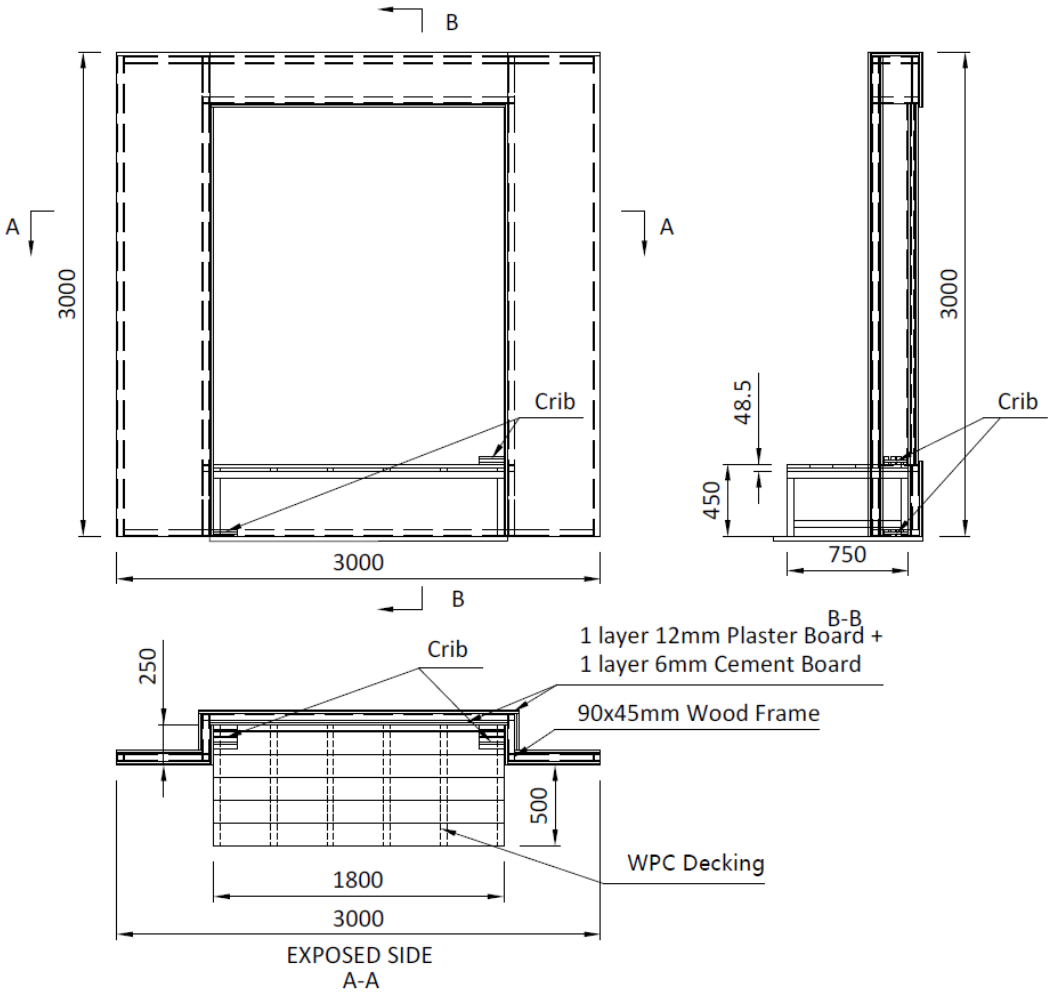
SECTION 7

TEST WALL CONSTRUCTION DRAWING



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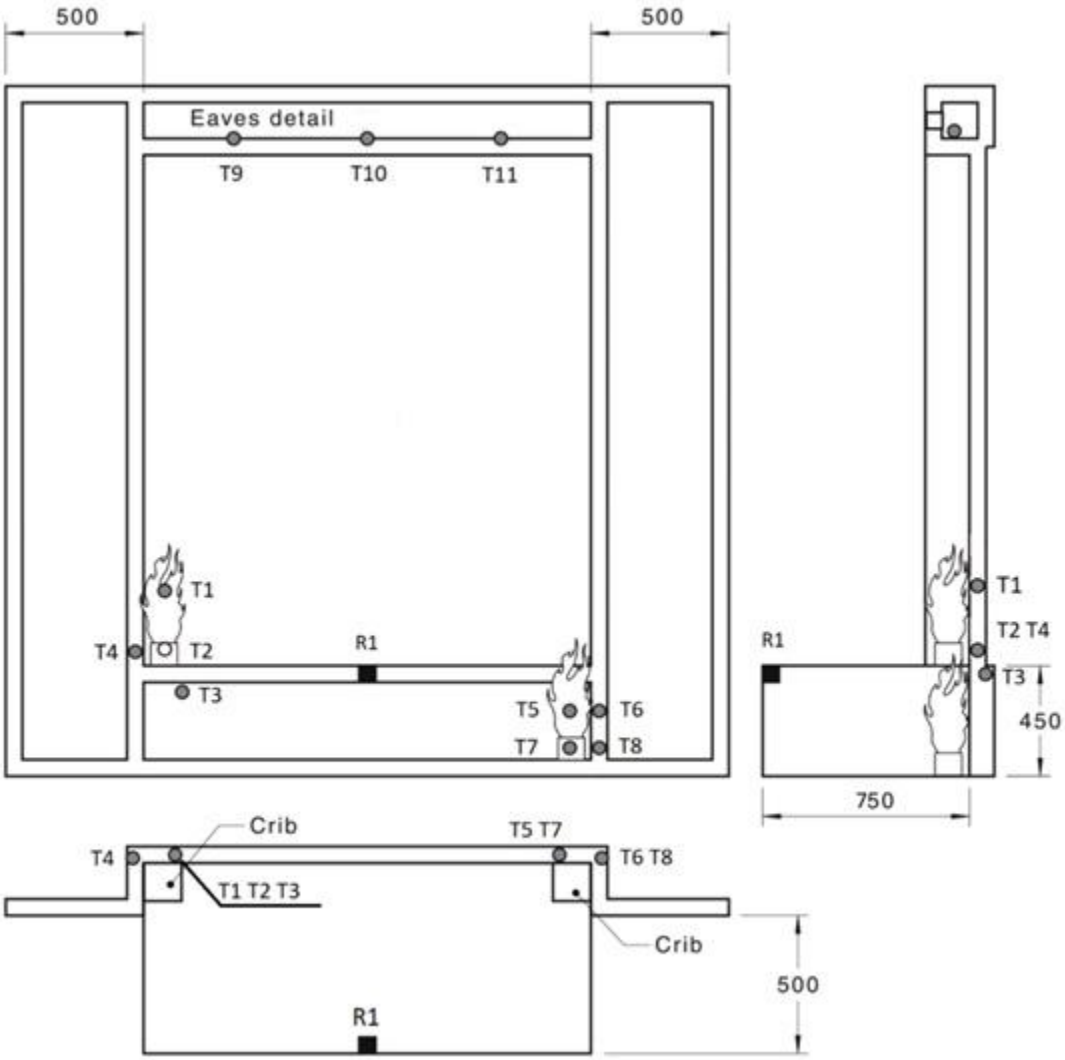
SECTION 8
TEST MEANSUREMENT DATA



Legend:

● = Position for internal maximum temperature of the wall and eave
■ = Location for radiant heat flux

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SECTION 9
TEST DATA

Standards: AS 1530.8.1:2018+A1:2024 Methods for fire tests on building materials, components and structures, Part 8.1: Tests on elements of construction for buildings exposed to simulated bushfire attack-Radiant heat and small flaming sources

Procedure: Part 8.1: Tests on elements of construction for buildings exposed to simulated bushfire attack- Radiant heat and small flaming sources

Conditioning: According to AS 1530.8.1, Section 12

Equipment:

ITEM	ID
Vertical furnace	SH1097
Test Clock	SH1042
Ambient temperature gauge	SH1097-11
Specimen thermocouple	SH1097-12 & SH1097-12-1~10
Heat flux meter	SH1093

Exposure Conditions:	According to AS 1530.8.1, Section 3.2, 14.2, 14.3
Test apparatus:	According to AS 1530.4 and 1530.8.1, Section 11
Conditioning:	According to 1530.8.1, Section 12
Test Specimen:	According to AS 1530.8.1, Section 15 through 22
Installation of test specimen:	According to AS 1530.8.1, Section 15 through 22
Heat flux meter:	According to AS 1530.8.1, Clause 11. (c)
Specimen Thermocouples:	According to AS 1530.4 and 1530.8.1, Clause 11. (g)
Test Procedure:	According to AS 1530.8.1, Section 14

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Test Observations:

Time		All observations are from the unexposed face unless noted otherwise.
Mins	Secs	
00	00	One type AA burning timber crib was placed at a rebate corner on the upper surface of the deck, and another type AA burning timber crib was placed at the other rebate corner under the deck. The burning crib test started. The test assembly was to be moved to the assigned position with radiation 19kw/m² in front of furnace and radiant panel and lasted 120s, the radiant heat exposure test started.
00	15	The pilot ignition source was applied to the position of smoke emission of the specimen with 10s and it was not ignited.
01	12	The pilot ignition source was applied to another position of smoke emission of the specimen with 10s and it was not ignited.
02	20	The test assembly moved to second assigned position with radiation 15kw/m² and exposed for 40s.
03	00	The test assembly moved to third assigned position with radiation 11kw/m² and exposed for 60s.
04	00	The test assembly moved to fourth assigned position with radiation 8kw/m² and exposed for 60s.
05	00	The test assembly moved to fifth assigned position with radiation 7kw/m² and exposed for 60s.
06	00	The test assembly moved to sixth assigned position with radiation 5kw/m² and exposed for 60s.
07	00	The test assembly moved to seventh assigned position with radiation 4kw/m² and exposed for 60s.
08	00	The test assembly moved to eighth assigned position with radiation 3kw/m² and exposed for 120s.
10	00	The test of radiant heat exposure was discontinued. Neither flaming nor through gaps were observed on the unexposed side of test assembly.
10	30	The burning of the two timber cribs extinguished.
20	00	A radiant heat flux meter was positioned at a distance of 250mm from the fire-exposed face of the plank and measurement of incident radiant heat started.
45	00	No significant change on unexposed side of test assembly.
60	00	Observation of 50 min period was discontinued.

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Heat flux data:
Incident heat flux together with heat flux profiles specified in the standard

Time/ Secs	Specified Heat Flux/ kW/m²	Incident Heat Flux / kW/m²
0	0	0.0
20	19	22.2
40	19	22.4
60	19	22.5
80	19	22.6
100	19	22.1
120	19	23.1
140	19	22.9
160	15	17.9
180	15	17.7
200	11	13.3
220	11	13.3
240	11	13.3
260	8	9.6
280	8	9.6
300	8	9.7
320	7	8.3
340	7	7.8
360	7	8.0
380	5	5.8
400	5	5.8
420	5	5.9
440	4	5.2
460	4	4.7
480	4	5.0
500	3	3.6
520	3	3.8
540	3	3.6
560	3	3.2
580	3	3.3
600	3	3.8

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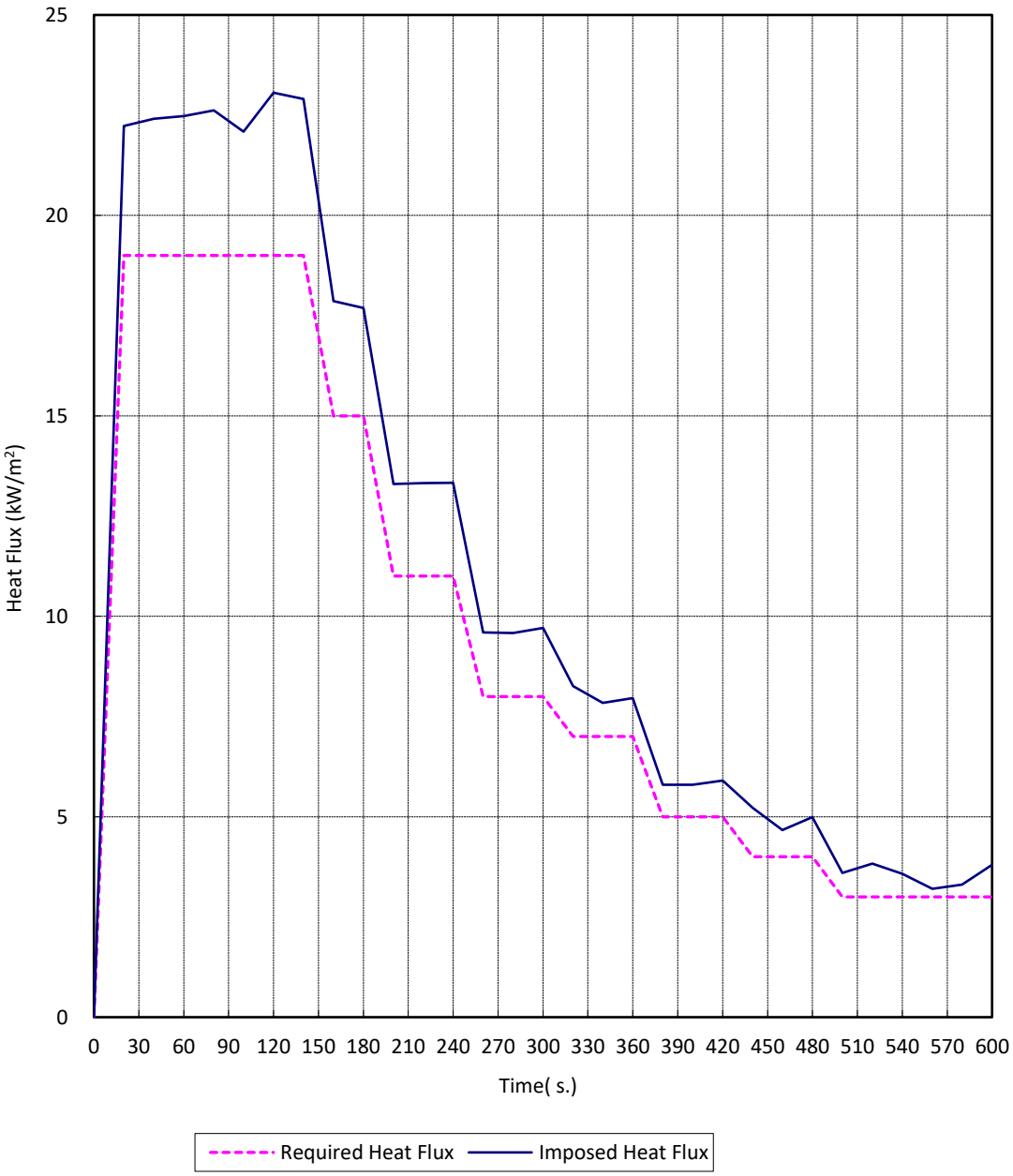
Graph for imposed heat flux and heat flux profiles specified in the standard



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Radiant heat flux:

R - At a distance of 250mm from the centre of exposed side of the specimen.

Time Mins	R (kW/m^2)
0	/
2	/
4	/
6	/
8	/
10	/
12	/
14	/
16	/
18	/
20	0.20
22	0.18
24	0.16
26	0.14
28	0.12
30	0.09
32	0.08
34	0.07
36	0.09
38	0.05
40	0.07
42	0.07
44	0.06
46	0.05
48	0.04
50	0.04
52	0.04
54	0.02
56	0.04
58	0.01
60	0.00

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Internal temperatures

Time Mins	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)	T5 (°C)	T6 (°C)
0	16	15	15	14	21	21
2	21	15	15	40	32	30
4	48	18	16	75	51	46
6	71	21	19	81	61	54
8	75	25	21	81	64	57
10	73	28	23	79	63	56
12	68	30	25	83	63	56
14	67	32	27	92	61	55
16	67	33	28	92	59	54
18	66	34	28	88	57	53
20	65	34	28	82	55	51
22	63	35	28	77	53	49
24	60	35	28	71	51	47
26	58	35	28	66	49	45
28	56	35	27	61	47	44
30	54	35	27	56	45	42
32	52	34	27	52	44	40
34	50	34	27	49	42	39
36	48	34	26	46	41	38
38	47	33	26	43	39	36
40	45	33	26	40	38	35
42	44	33	26	38	37	34
44	42	32	25	37	35	33
46	41	32	25	35	34	32
48	40	31	25	34	33	31
50	39	31	25	33	32	30
52	37	30	25	32	32	29
54	36	30	24	31	31	29
56	35	30	24	30	30	28
58	35	29	24	30	29	27
60	34	29	24	29	29	27

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Internal temperatures

Time Mins	T7 (°C)	T8 (°C)	T9 (°C)	T10 (°C)	T11 (°C)
0	19	20	24	20	20
2	30	33	28	22	24
4	65	65	45	33	41
6	77	79	64	50	60
8	79	82	70	60	68
10	79	81	72	63	69
12	79	82	73	63	69
14	77	89	72	62	69
16	76	92	71	61	67
18	73	89	69	60	65
20	71	85	66	58	63
22	68	79	64	57	61
24	64	73	62	55	59
26	61	68	60	54	57
28	57	62	57	52	55
30	54	58	55	50	53
32	50	53	53	49	51
34	47	49	51	47	49
36	45	46	50	46	47
38	42	43	48	45	45
40	40	41	47	43	44
42	38	39	45	42	42
44	36	37	44	41	41
46	35	35	42	40	39
48	33	34	41	38	38
50	32	32	40	37	37
52	31	31	39	36	36
54	30	31	38	36	35
56	29	30	37	35	34
58	29	29	36	34	33
60	28	28	35	33	32

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SECTION 10
PHOTOGRAPHS

Fig. 1 Exposed Side before the Radiant heat test

Fig. 2 Exposed Side after 60 minutes

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SECTION 11
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	2026-03-09	N/A	Original Report Issue