The Building Test Centre
Fire Acoustics Structures

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Report Number: **BTC 21757F**

A FIRE RESISTANCE TEST ON A 63 MM DEEP TIMBER STUD PARTITION CLAD EACH SIDE WITH A SINGLE LAYER OF 15 MM GYPROC SOUNDBLOC, CONDUCTED IN ACCORDANCE WITH BS EN 1364-1: 2015.

Test Date: 6th April 2021

Report Issue Date: 7th April 2021

www.btconline.co.uk

Customer: **British Gypsum**
East Leake
Loughborough
Leicestershire
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FIELD OF DIRECT APPLICATION **39**
General **39**
Extension of Width **39**
Extension of Height **39**

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FOREWORD

This test report details a fire resistance test conducted on a timber stud partition clad on each face with a single layer of Gyproc SoundBloc.

The test sponsor was British Gypsum.

The test specimen was installed by PVR Joinery. The construction of the specimen took place on 31st March 2021. The Building Test Centre played no role in the design or selection of materials comprising the test specimen. This information is provided by the sponsor.

The test was conducted on the 6th April 2021.

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 procedures outlined in EN 1363-1, and where appropriate EN 1363-2. Any significant deviation with respect to size, constructional details, loads, stresses, edge of end conditions other than those allowed under the field of direct application in EN 1364-1 is not covered by this report.

"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." (BS EN 1363-1: 2020, section 12.1)

REPORT AUTHORISATION

Report Author	Authorised by
Matthew Porter MEng. (Hons.) MIFireE. *Laboratory Supervisor*	**Paul Miller** BSc. (Hons.) *Fire Test Manager*

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TEST REPORT AMENDMENTS

Page	Amendments	Date

Report Amendments Author	Amendments Authorised by
Name *Role*	**Name** *Role*

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TEST CONSTRUCTION

Description of Construction

The specimen was constructed in a refractory concrete lined steel restraint test frame with an opening of 3000 mm (high) x 3000 mm (wide).

63 mm x 38 mm timber head and sole plates were fixed to the head and base of the test aperture at 600 mm centres using 100 mm fire resistant fixings.

63 mm x 38 mm timber studs were positioned at 600 mm centres between the head and sole plates and skew fixed using 75 mm British Gypsum Drywall Screws. The right hand stud viewed from the unexposed face was not fixed to the perimeter of the test frame, and the gap between the stud and the frame lining was filled with a 25 mm thick rock mineral fibre gasket.

At the left-hand edge a 63 mm x 38 mm timber stud was used to fix the partition to the test frame, using 100 mm fire resistance fixings at 600 mm centres.

63 mm x 38 mm timber stud noggings were positioned between the studs at 2400 mm from the base of the specimen and skew fixed using 75 mm British Gypsum Drywall Screws.

Thermocouples were added to the timber studs at mid height on the web, hot and cold faces of the central two studs.

Both the unexposed face and the exposed face of the specimen were clad with a single layer of 15 mm Gyproc SoundBloc. The boards were fixed with 40 mm British Gypsum Drywall Screws at 300 mm centres around the perimeter and within the field of the boards.

All vertical joints were staggered between layers, with a full board at the free end of the exposed face. A horizontal joint was positioned at 2400 mm from the base on the outer layer boards on both faces of the specimen.

All external board joints were taped and filled using Gyproc Paper Joint Tape and Gyproc Joint Filler as appropriate. All screw heads were spotted using Gyproc Joint Filler.

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Test Construction Drawings

Horizontal Cross Section

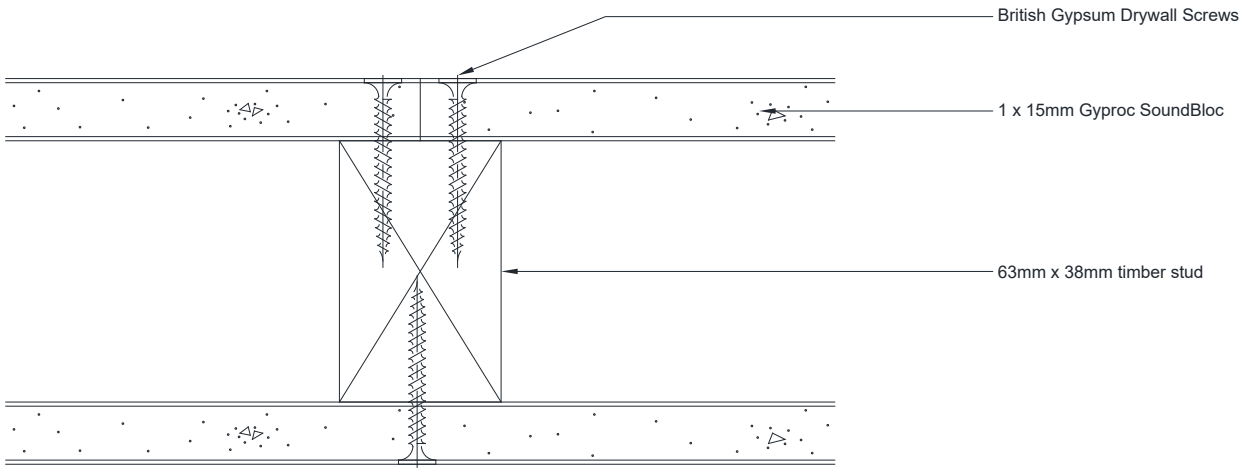

Figure 1 – Horizontal cross section.

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Exposed Face Elevation

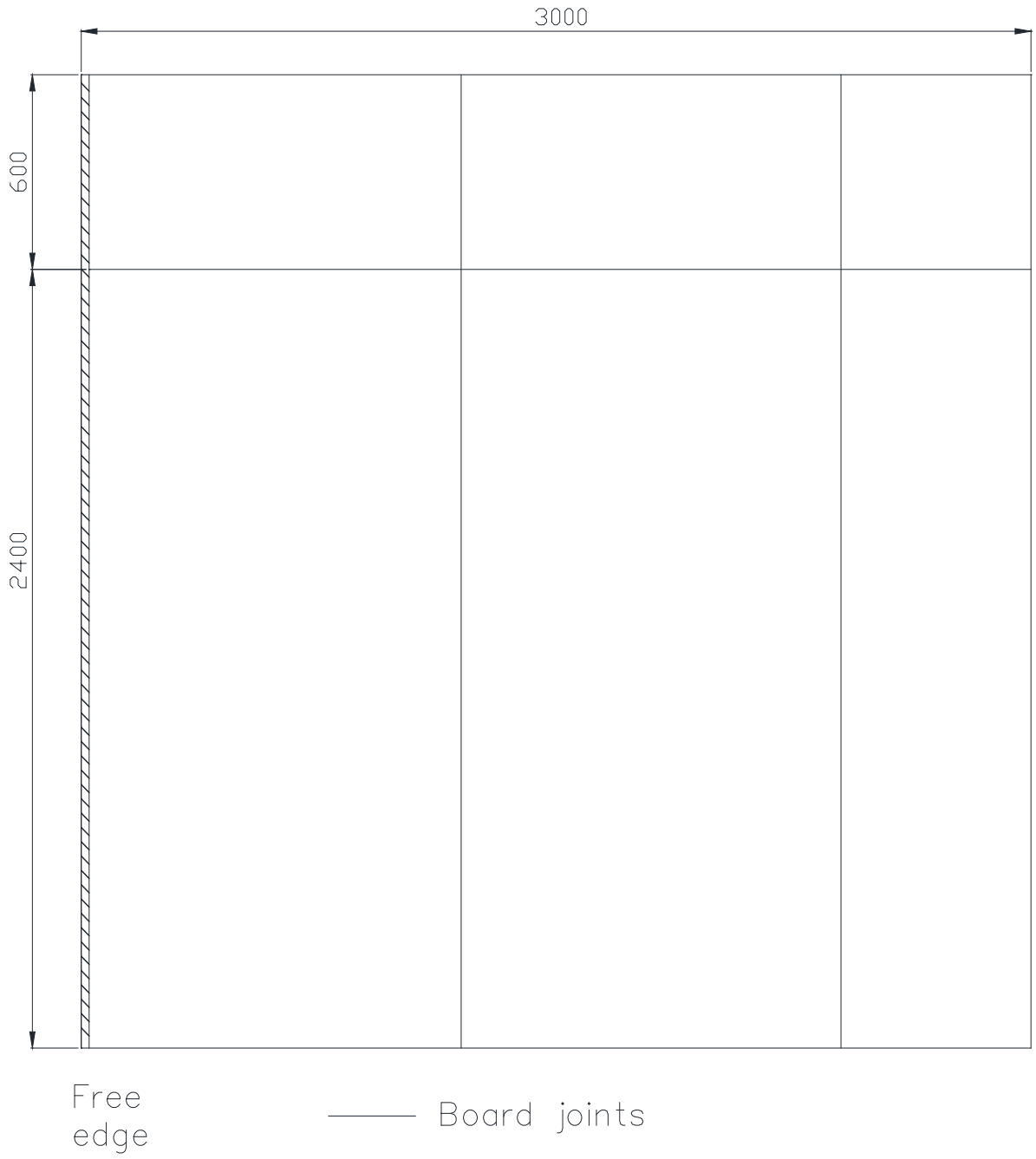

Figure 2 – Exposed face elevation.

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Unexposed Face Elevation

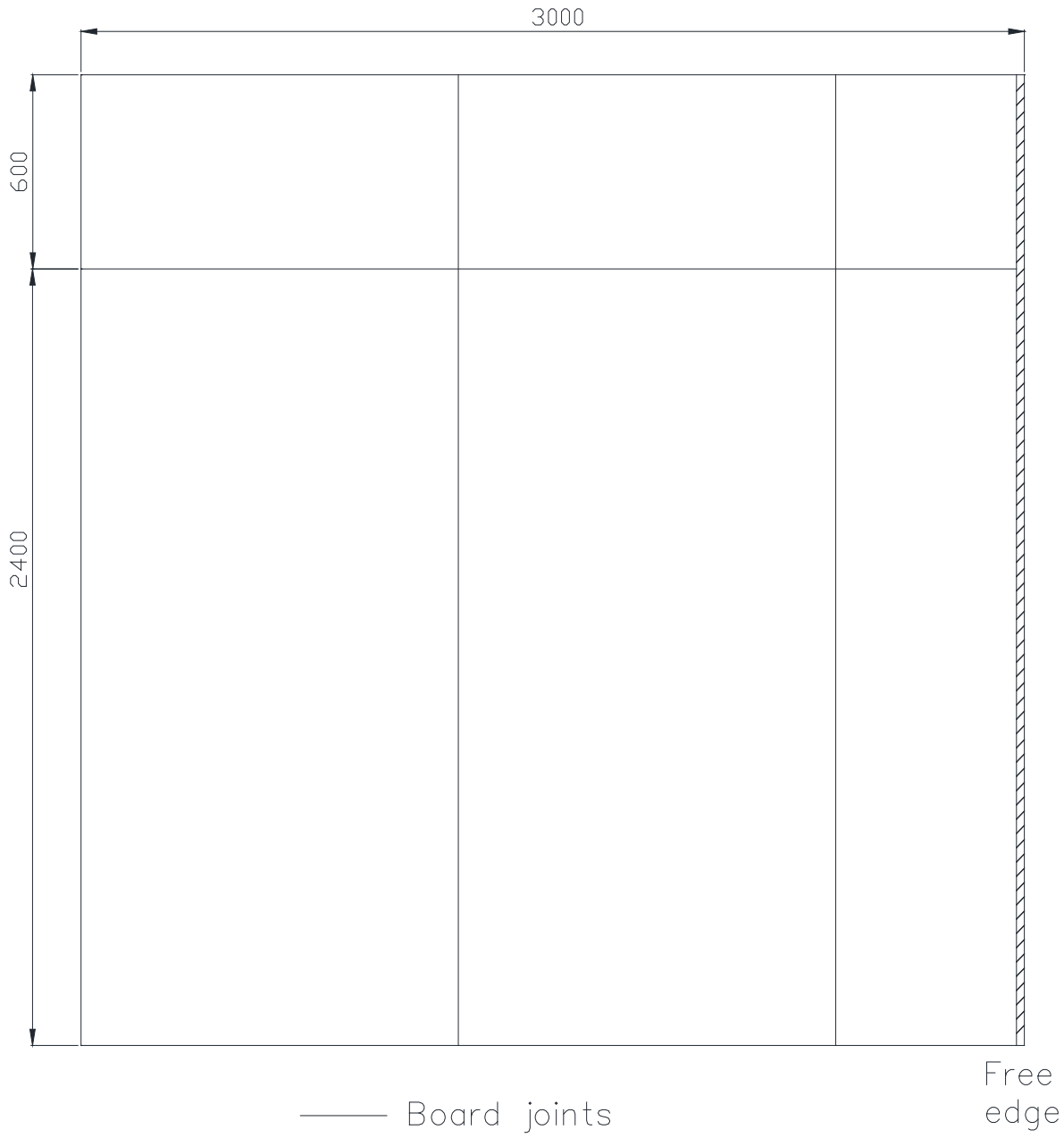

Figure 3 – Unexposed face elevation.

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TEST MATERIALS

Plasterboard

i) Nominally, 2400 mm (long) x 1200 mm (wide) x 15 mm (thick), Gyproc SoundBloc (TE), manufactured and supplied by British Gypsum, ex Sherburn.

Measured mass per unit area:	14.3 kg/m²
Measured thickness:	15.2 mm
Board identification numbers:	31 061 21 12:37
	31 061 21 12:37
	31 061 21 12:37
Measured moisture content:	0.54 %

The surface density and board thickness were calculated using the actual weight and size of a selection of boards used in the test specimen. The moisture content of plasterboard was determined using samples dried to constant weight in an oven at 50 °C.

Material dimensions were supplied by British Gypsum.

Timber Components

ii) Nominally, 3000 mm (long) x 63 mm (deep) x 38 mm (wide), C16 grade softwood studs, supplied by British Gypsum.

Measured dimensions:	3009 mm (long)
	63 mm (deep)
	39 mm (wide)
Measured mass per metre:	1.276 kg/m
Measured moisture content:	16.09 %

The mass and dimensions of the timber components were calculated using the actual weight and size of a selection of components used in the test specimen. The moisture content was determined using samples dried to constant weight in an oven at 102 °C.

Fasteners

iii) 75 mm British Gypsum Drywall Screws, supplied by The Building Test Centre.
iv) 40 mm British Gypsum Drywall Screws, supplied by The Building Test Centre.

Miscellaneous Components

v) Gyproc Paper Joint Tape, supplied by The Building Test Centre.
vi) Gyproc Joint Filler, supplied by The Building Test Centre.
vii) Rock mineral fibre gasket, supplied by The Building Test Centre.

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Where measurements could not be taken and were provided by the customer or the manufacturer e.g. from material labelling, or where mass and dimension measurements were provided by the customer or the manufacturer e.g. customer has completed material dimension forms the results only apply to the sample as received.

All data and materials supplied by the customer or manufacturer are clearly identified.

Material information was sampled and recorded according to procedure AP070 vs. 1.1.

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TEST PROCEDURE

The test was conducted fully in accordance with BS EN 1364-1: 2015. The specimen was subjected to fire from one side, as specified in BS EN 1364-1: 2015.

As the test specimen is considered to be symmetrical one test is adequate to cover the fire resistance performance in both directions.

The test procedure used was EN 1364-1 Issue 3.

The ambient temperature at the commencement of the test was 12 °C.

The furnace pressure was set to control at 18 ± 2 Pa positive with respect to atmosphere, at the top of the specimen. Furnace pressure data is shown in **Figure 5**.

The test conditions did not meet the full requirements of BS EN 1363-1: 2020 as the test frame stiffness did not fully comply.

The specimen and associated construction were not conditioned in accordance with clause 8 of BS EN 1363-1: 2020.

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TEST RESULTS

The requirement of the standard was satisfied for the following periods:

Integrity	**Sustained Flaming**	**83 minutes, no failure.**
	6 mm Gap Gauge	**82 minutes.**
	25 mm Gap Gauge	**83 minutes, no failure.**
	Cotton Pad	**83 minutes, no failure.**
Insulation		**75 minutes.**
Test Terminated		**83 minutes, at the request of the sponsor.**

LIMITATIONS

The scope of the Field of Direct Application of the results and construction details in this test report is explained in BS EN 1364-1: 2015, section 13.

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TEST DATA

Observations

All observations refer to the exposed face unless stated.

Observers: Unexposed face: Matthew Porter
Exposed face: Mark Shortland

Time Hours	Time Minutes	Observations
0	10	Jointing material was flaking away. Face papers had charred.
0	20	Left-hand vertical joint had opened up to approximately 2-3 mm. Right-hand vertical joint had opened up to approximately 1-2 mm. Horizontal joint had opened up to approximately 1-2 mm.
0	30	Left-hand vertical joint had opened up to approximately 8-10 mm Right-hand vertical joint had opened up to approximately 6-8 mm. Horizontal joint had opened up to approximately 4-6 mm. Boards began to crack around screw heads. *Unexposed face* No visible change.
0	40	Left-hand vertical joint had opened up to approximately 12-15 mm. Right-hand vertical joint had opened up to approximately 10-12 mm. Horizontal joint had opened up to approximately 7-8 mm.
0	50	Left-hand vertical joint had opened up to approximately 15-16 mm. Right-hand vertical joint had opened up to approximately 12-14 mm. Horizontal joint had opened up to approximately 8-10 mm.
0	00	Left-hand vertical joint had opened up to approximately 16-18mm. Right-hand vertical joint had opened up to approximately 14-16 mm. Horizontal joint had opened up to approximately 8-10 mm. *Unexposed face* No visible change
1	10	Lower left-hand board fell into the furnace. Visible unexposed boards crazed.

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Time Hours	Time Minutes	Observations
1	11	Lower centre board fell into the furnace. All visible studs had severely eroded.
1	13	Upper left-hand board fell into the furnace.
1	15	*Unexposed face* **INSULATION FAILURE.** The mean temperature rise of the standard five thermocouples exceeded 140 °C and the temperature rise of thermocouple no.22 positioned at the centre of the specimen exceeded 180 °C. Lower centre board had discoloured.
1	17	Upper centre board fell into the furnace. Lower right-hand board fell into the furnace.
1	22	*Unexposed face* **INTEGRITY FAILURE.** The gap at approximately 2000 mm height on the left-hand side of the lower centre board had exceeded 6 mm x 150 mm (visual). Cotton pad was placed onto the specimen at approximately 2000 mm height on the left-hand side of the lower centre board – no failure.
1	23	**TEST TERMINATED** at the request of the sponsor.

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Furnace Temperature Graph

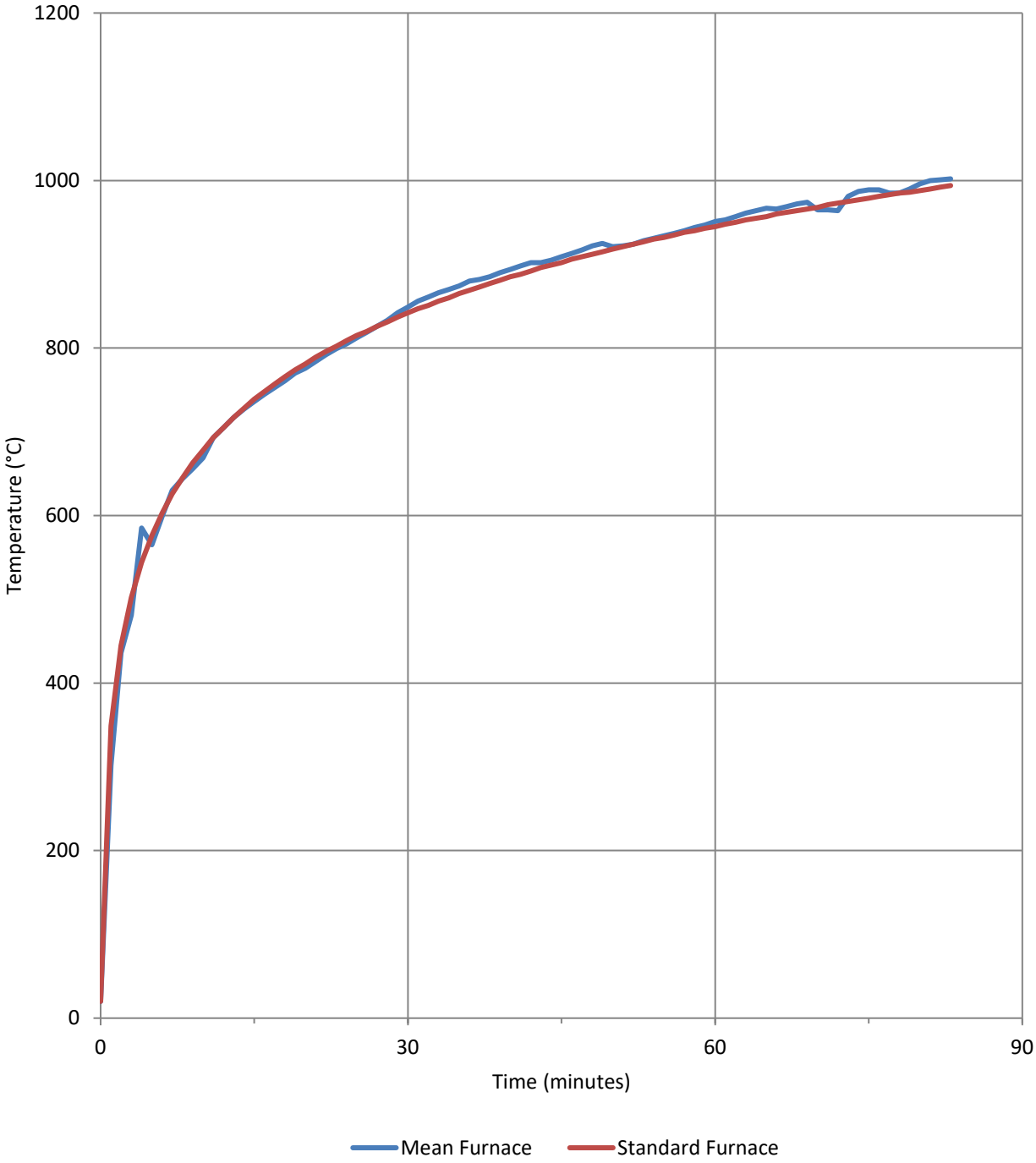

Figure 4 – Furnace temperature graph.

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Furnace Pressure Graph

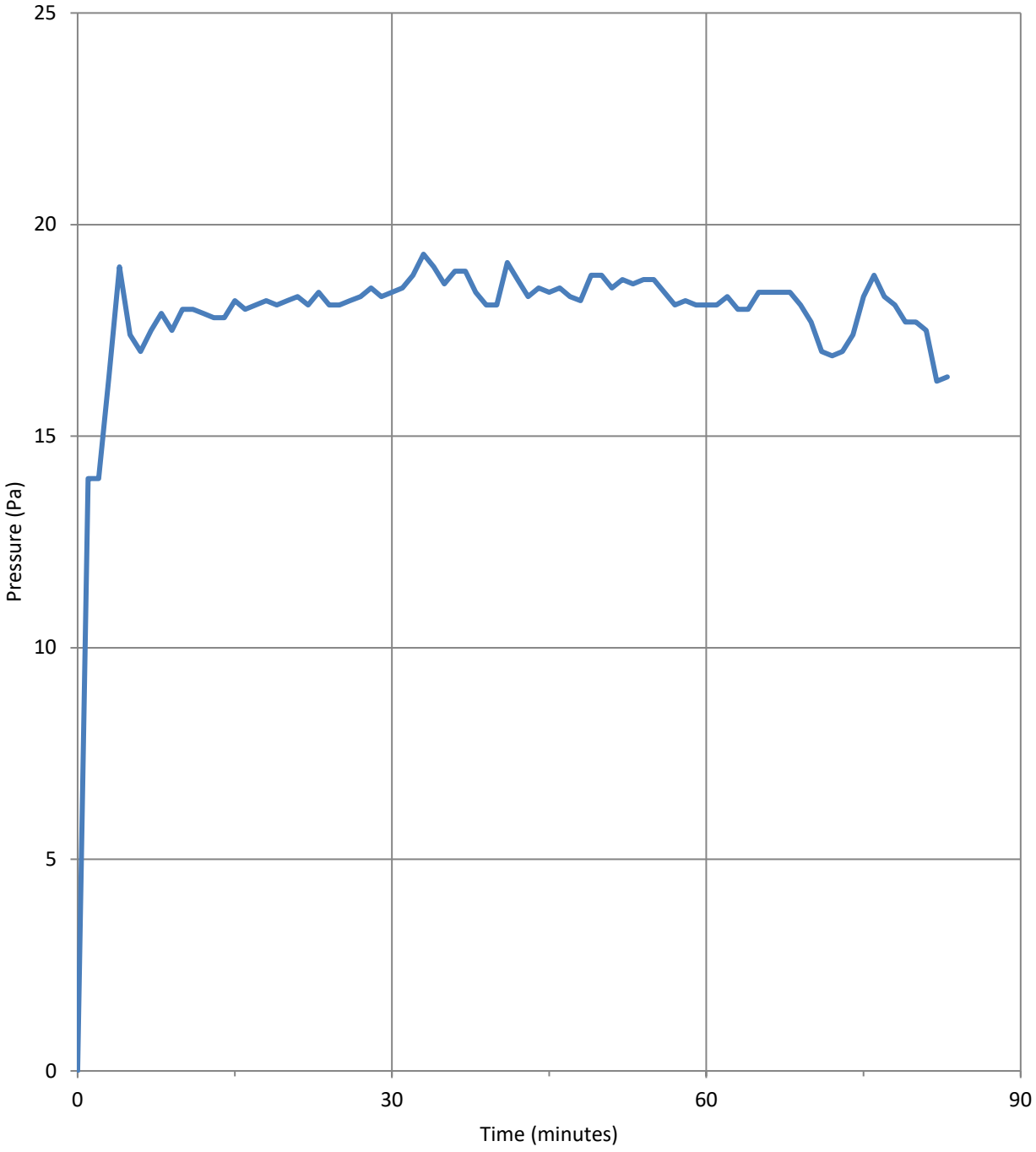

Figure 5 – Furnace pressure graph.

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Unexposed Face Temperature Graph

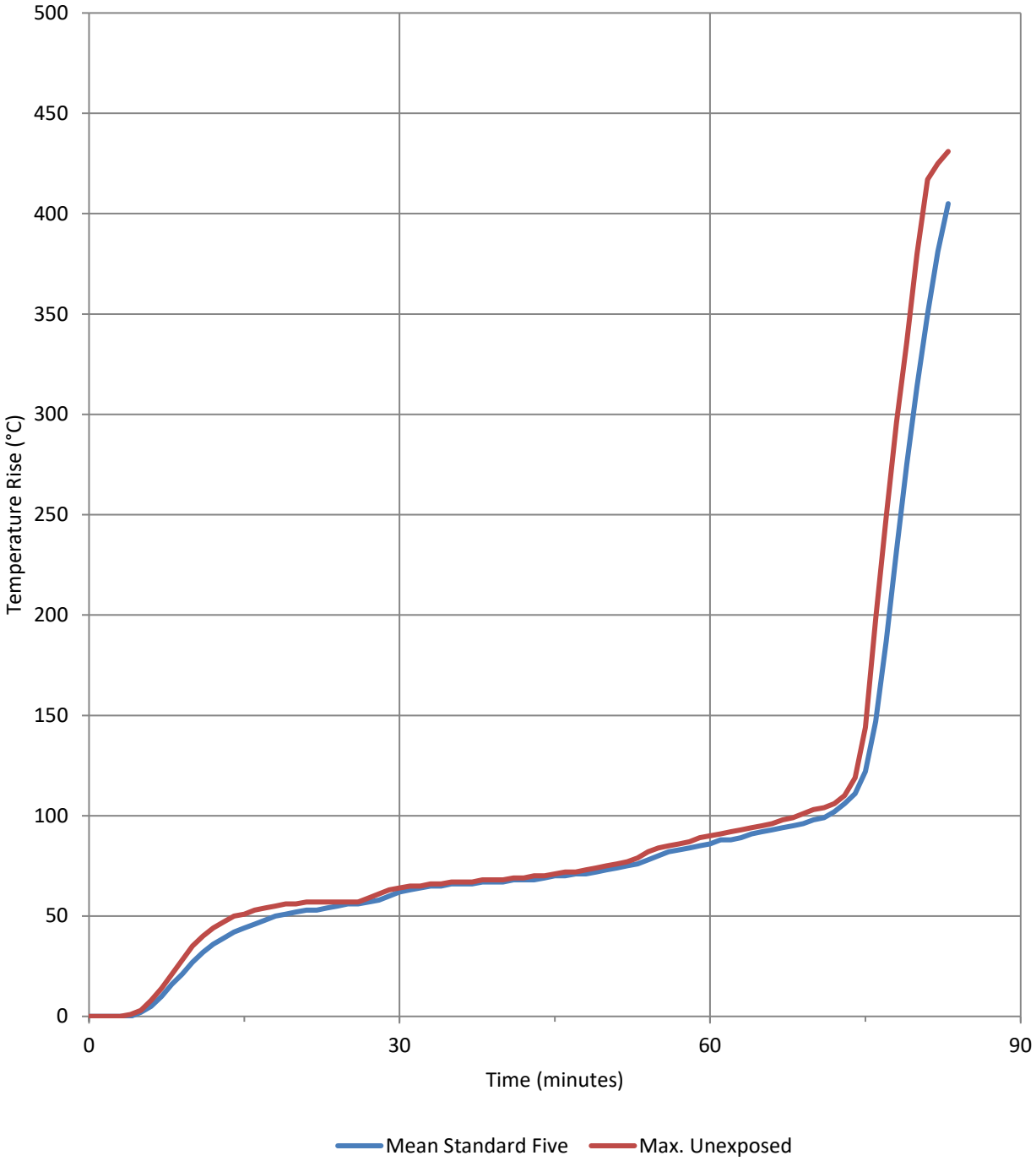

Figure 6 – Unexposed face temperature graph.

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Unexposed Face Thermocouple Layout

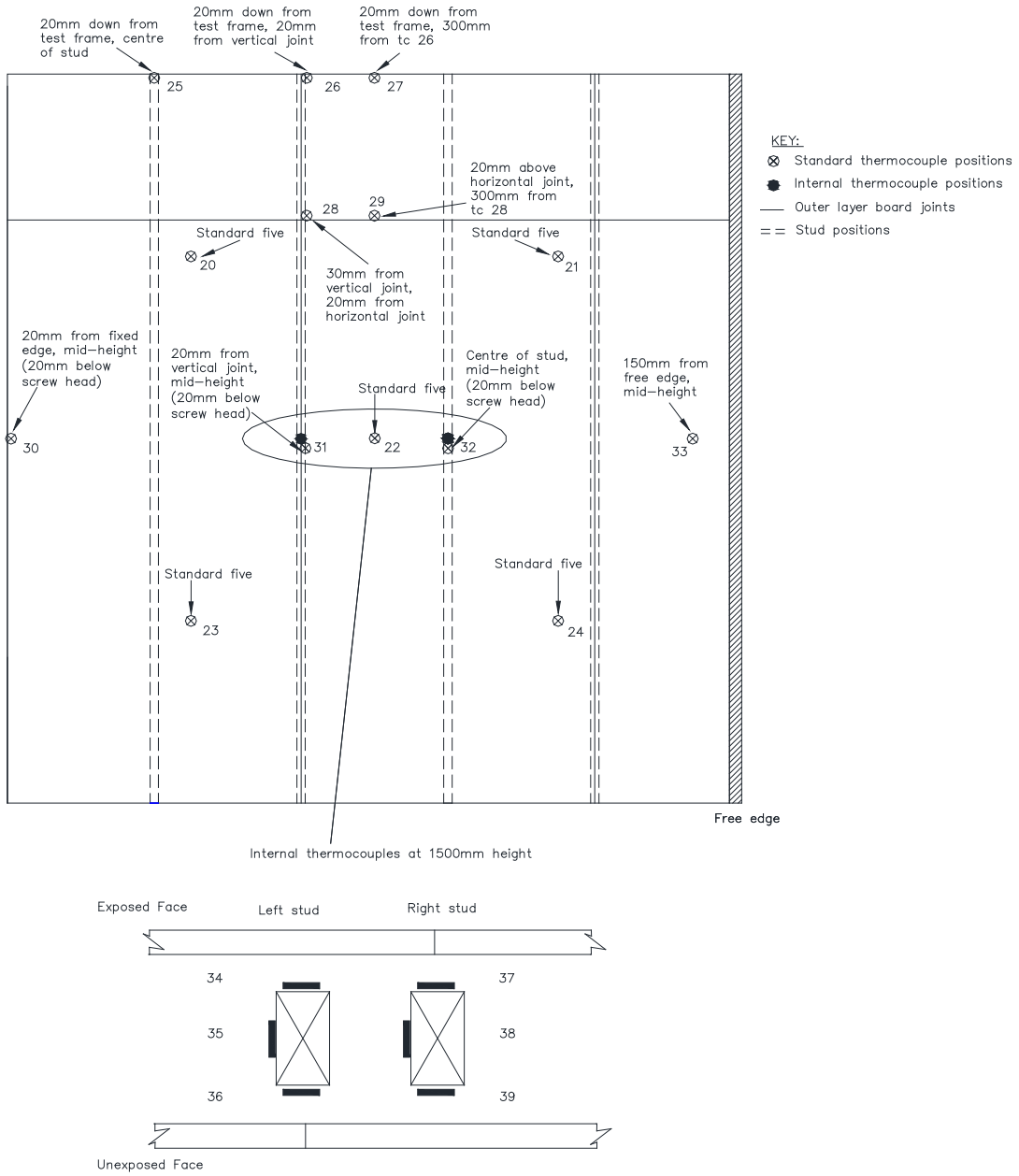

Figure 7 – Unexposed face thermocouple layout.

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Unexposed Face Standard Five Temperature Data

Time (minutes)	Temperature Rise (°C)					
	Thermocouple No. 20	Thermocouple No. 21	Thermocouple No. 22	Thermocouple No. 23	Thermocouple No. 24	Mean Standard Five
0	0	0	0	0	0	0
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	1	1	0	0	0
5	2	2	3	2	1	2
6	5	7	6	4	4	5
7	11	13	11	7	7	10
8	18	21	17	11	12	16
9	25	28	22	16	16	21
10	31	35	27	20	21	27
11	37	40	32	24	25	32
12	41	44	36	28	29	36
13	44	47	39	31	32	39
14	47	50	42	34	36	42
15	49	51	45	37	39	44
16	50	53	47	39	42	46
17	52	54	49	42	44	48
18	53	55	50	44	46	50
19	54	56	51	46	47	51
20	55	56	52	47	49	52
21	55	57	53	49	50	53
22	55	57	54	50	51	53
23	56	57	54	51	52	54
24	56	57	55	53	53	55
25	56	57	56	54	55	56
26	55	57	57	55	55	56
27	55	57	59	56	56	57
28	56	58	61	58	57	58
29	57	60	63	60	59	60
30	59	62	64	62	61	62
31	61	64	65	64	63	63
32	63	65	65	65	64	64
33	64	65	65	66	65	65
34	64	65	66	66	65	65
35	64	65	66	67	66	66
36	65	66	66	67	66	66
37	65	66	67	67	66	66
38	65	66	67	68	67	67

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Time (minutes)	Temperature Rise (°C)					
	Thermocouple No. 20	Thermocouple No. 21	Thermocouple No. 22	Thermocouple No. 23	Thermocouple No. 24	Mean Standard Five
39	65	67	67	68	67	67
40	65	67	68	68	68	67
41	66	67	68	69	68	68
42	66	67	69	69	68	68
43	66	68	69	70	69	68
44	66	68	70	70	69	69
45	67	69	71	71	70	70
46	67	70	72	72	71	70
47	68	70	72	72	71	71
48	68	71	73	73	72	71
49	69	72	74	74	73	72
50	69	73	75	75	73	73
51	70	74	76	76	74	74
52	70	75	77	77	75	75
53	71	76	79	79	76	76
54	71	79	82	81	78	78
55	72	81	84	83	80	80
56	73	83	85	85	82	82
57	74	84	86	86	84	83
58	76	85	87	87	85	84
59	78	86	89	88	86	85
60	79	87	90	88	87	86
61	81	88	91	90	88	88
62	82	89	92	90	89	88
63	83	90	93	91	90	89
64	85	91	94	92	91	91
65	86	92	95	93	92	92
66	87	93	96	94	93	93
67	88	94	98	95	94	94
68	89	96	99	96	95	95
69	90	97	101	97	97	96
70	92	99	103	98	98	98
71	93	101	104	99	100	99
72	95	105	106	101	104	102
73	98	109	110	104	108	106
74	102	114	119	109	113	111
75	106	126	**144**	115	119	**122**
76	112	158	198	122	147	147
77	126	210	249	148	200	187
78	164	252	296	201	245	232
79	210	292	336	249	286	275

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Time (minutes)	Temperature Rise (°C)					
	Thermocouple No. 20	Thermocouple No. 21	Thermocouple No. 22	Thermocouple No. 23	Thermocouple No. 24	Mean Standard Five
80	249	328	380	293	320	314
81	284	363	417	333	353	350
82	313	399	425	376	391	381
83	339	431	430	411	413	405

Figures highlighted in red indicate the minute in which the temperature rise exceeded 180°C and the mean temperature rise exceeded 140°C.

See **Figure 7** for the location of the thermocouples.

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Additional Unexposed Face Temperature Data

Time (minutes)	Temperature Rise (°C)				
	Thermocouple No. 25	Thermocouple No. 26	Thermocouple No. 27	Thermocouple No. 28	Thermocouple No. 29
0	0	0	0	0	0
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	1	0	0	0
5	0	3	0	1	1
6	1	8	1	2	2
7	2	14	3	4	3
8	4	21	5	7	6
9	6	26	7	11	9
10	9	31	10	14	12
11	11	34	13	18	15
12	13	37	15	21	18
13	15	39	17	24	21
14	17	40	19	27	24
15	19	42	21	30	27
16	21	43	23	32	30
17	23	45	24	34	32
18	25	46	26	36	35
19	26	47	28	38	37
20	27	49	29	40	39
21	28	50	31	42	41
22	30	51	32	44	42
23	30	52	33	45	44
24	32	53	34	46	45
25	33	54	35	48	46
26	35	54	36	49	48
27	36	54	37	50	49
28	37	53	38	50	50
29	38	53	38	51	51
30	39	53	39	52	52
31	40	53	40	52	53
32	40	53	41	52	53
33	41	54	42	52	54
34	41	55	43	54	56
35	42	56	45	55	57
36	43	56	45	56	58
37	44	57	46	56	60
38	44	57	47	57	60

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Time (minutes)	Temperature Rise (°C)				
	Thermocouple No. 25	Thermocouple No. 26	Thermocouple No. 27	Thermocouple No. 28	Thermocouple No. 29
39	45	57	48	58	61
40	46	57	48	59	61
41	46	57	49	60	62
42	47	57	50	61	62
43	47	56	50	61	62
44	48	56	51	61	63
45	48	55	51	62	63
46	49	55	52	62	64
47	49	54	53	63	64
48	50	54	53	63	64
49	50	54	54	64	65
50	51	54	55	64	65
51	51	54	55	65	66
52	52	55	56	65	66
53	52	55	57	66	67
54	53	55	58	66	67
55	53	56	59	67	67
56	54	56	59	68	68
57	54	57	60	68	68
58	55	57	61	69	69
59	55	58	61	69	70
60	56	58	61	70	70
61	56	59	62	70	71
62	56	59	62	71	71
63	57	60	63	71	72
64	57	60	63	72	73
65	58	61	63	73	74
66	58	61	64	74	75
67	59	62	64	75	78
68	59	63	65	77	80
69	60	63	65	79	81
70	60	64	66	80	83
71	61	64	67	81	84
72	61	65	68	82	85
73	62	66	69	84	86
74	63	66	71	85	88
75	64	67	72	86	89
76	64	69	74	88	92
77	65	70	75	91	96
78	66	73	78	94	100
79	67	75	81	98	106

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Time (minutes)	Temperature Rise (°C)				
	Thermocouple No. 25	Thermocouple No. 26	Thermocouple No. 27	Thermocouple No. 28	Thermocouple No. 29
80	69	78	85	104	112
81	71	80	89	111	118
82	73	82	92	114	122
83	74	86	98	116	125

See **Figure 7** for the location of the thermocouples.

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Additional Unexposed Face Temperature Data

Time (minutes)	Temperature Rise (°C)			
	Thermocouple No. 30	Thermocouple No. 31	Thermocouple No. 32	Thermocouple No. 33
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	1	0	1
6	1	4	1	4
7	1	7	2	8
8	4	11	3	12
9	9	15	5	18
10	14	19	7	23
11	17	23	9	27
12	21	26	12	32
13	23	29	15	35
14	25	32	18	38
15	27	36	21	41
16	27	38	24	44
17	28	40	27	46
18	29	42	30	48
19	29	44	32	49
20	30	45	35	51
21	31	46	37	52
22	31	47	39	52
23	32	49	41	54
24	33	49	42	54
25	34	50	43	55
26	35	49	43	54
27	35	50	44	55
28	36	51	45	55
29	36	52	46	56
30	36	54	47	58
31	37	55	48	59
32	37	57	50	61
33	38	58	51	62
34	39	59	52	63
35	40	60	53	63
36	41	61	54	63
37	41	61	54	64
38	42	62	55	64

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Time (minutes)	Temperature Rise (°C)			
	Thermocouple No. 30	Thermocouple No. 31	Thermocouple No. 32	Thermocouple No. 33
39	43	63	55	64
40	44	63	56	65
41	45	63	56	65
42	46	64	57	65
43	46	64	57	65
44	47	65	58	66
45	48	65	58	66
46	49	65	59	67
47	49	66	59	67
48	50	67	60	68
49	50	67	60	69
50	51	68	61	69
51	51	68	61	70
52	52	69	61	71
53	52	69	62	72
54	53	70	62	72
55	54	70	62	74
56	55	71	63	75
57	55	71	63	77
58	56	72	63	79
59	57	72	63	81
60	58	73	64	82
61	59	73	65	84
62	59	74	65	85
63	60	75	65	86
64	61	76	66	87
65	62	77	66	88
66	63	79	67	88
67	63	82	67	89
68	64	84	68	90
69	65	85	68	91
70	66	87	69	92
71	66	88	71	94
72	67	90	72	98
73	68	94	74	102
74	69	97	75	106
75	70	101	76	111
76	71	106	77	117
77	72	113	78	138
78	74	125	80	188
79	76	157	84	234

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Time (minutes)	Temperature Rise (°C)			
	Thermocouple No. 30	Thermocouple No. 31	Thermocouple No. 32	Thermocouple No. 33
80	78	200	90	274
81	81	242	96	310
82	85	274	101	346
83	88	299	106	392

See **Figure 7** for the location of the thermocouples.

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Internal Temperature Data at 1500 mm Height

Time (minutes)	Actual Temperature (°C)					
	Left stud			Right stud		
	Hot Flange Thermocouple No. 34	Web Thermocouple No. 35	Cold Flange Thermocouple No. 36	Hot Flange Thermocouple No. 37	Web Thermocouple No. 38	Cold Flange Thermocouple No. 39
0	16	16	15	17	16	15
1	23	15	15	18	16	15
2	37	19	15	29	19	15
3	57	32	15	50	31	15
4	80	54	15	80	53	16
5	93	68	17	99	68	18
6	97	74	19	100	75	22
7	99	79	24	100	80	26
8	101	82	29	99	82	29
9	104	84	33	99	83	32
10	107	85	37	99	84	36
11	111	86	42	100	85	41
12	117	87	49	100	87	47
13	123	89	55	101	88	54
14	129	90	59	101	89	60
15	135	91	60	104	90	63
16	140	92	60	107	90	67
17	144	93	61	110	91	70
18	149	93	62	113	91	74
19	154	94	63	116	92	77
20	161	95	66	119	92	80
21	171	95	68	124	93	80
22	183	96	71	130	94	79
23	199	97	70	139	95	79
24	217	98	70	153	97	77
25	239	104	71	176	114	78
26	260	116	73	205	133	79
27	281	140	76	236	150	80
28	304	164	81	273	167	80
29	327	182	82	321	182	84
30	347	195	83	369	195	86
31	364	206	84	406	206	88
32	380	214	85	443	217	89
33	395	223	85	486	224	90
34	411	234	89	530	234	91
35	427	244	91	570	243	92
36	443	249	89	598	252	92

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Time (minutes)	Actual Temperature (°C)					
	Left stud			Right stud		
	Hot Flange Thermocouple No. 34	Web Thermocouple No. 35	Cold Flange Thermocouple No. 36	Hot Flange Thermocouple No. 37	Web Thermocouple No. 38	Cold Flange Thermocouple No. 39
37	457	255	90	625	261	93
38	469	264	91	650	270	94
39	481	271	91	686	278	94
40	491	280	91	713	288	95
41	500	287	92	728	296	96
42	508	295	92	740	306	97
43	515	303	93	746	315	99
44	522	311	94	747	322	100
45	527	321	95	750	333	102
46	533	328	97	753	342	103
47	539	336	98	745	353	105
48	545	345	100	745	363	107
49	551	354	102	735	373	110
50	555	362	104	-	383	112
51	562	371	107	-	392	114
52	568	380	110	-	403	117
53	571	388	113	-	414	120
54	575	397	116	-	424	123
55	577	406	120	-	436	125
56	581	414	123	-	448	129
57	584	425	127	-	459	133
58	585	434	131	-	469	137
59	586	443	135	-	480	140
60	588	452	139	-	490	144
61	593	461	143	-	503	147
62	596	469	147	-	514	151
63	601	477	151	-	527	154
64	602	485	155	-	539	158
65	608	493	159	-	552	162
66	609	499	163	-	564	166
67	613	506	168	-	572	170
68	619	513	173	-	586	175
69	623	520	178	-	597	181
70	624	528	185	-	923	224
71	545	615	194	-	915	709
72	955	939	956	-	920	895
73	956	952	-	-	-	909
74	952	959	-	-	-	-
75	942	960	-	-	-	-

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Time (minutes)	Actual Temperature (°C)					
	Left stud			Right stud		
	Hot Flange Thermocouple No. 34	Web Thermocouple No. 35	Cold Flange Thermocouple No. 36	Hot Flange Thermocouple No. 37	Web Thermocouple No. 38	Cold Flange Thermocouple No. 39
76	928	-	-	-	-	-
77	913	-	-	-	-	-
78	-	-	-	-	-	-

- Thermocouple broken due to equipment failure.

See **Figure 7** for the location of the thermocouples.

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Specimen Lateral Deflection

Time (minutes)	Deflection (mm)
	Centre
0	0
1	6
2	6
3	6
4	6
5	6
6	6
7	6
8	6
9	6
10	6
11	7
12	7
13	7
14	8
15	8
16	9
17	9
18	9
19	9
20	9
21	9
22	9
23	9
24	9
25	8
26	8
27	7
28	8
29	7
30	6
31	6
32	5
33	5
34	4
35	4
36	3
37	2
38	1

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Time (minutes)	Deflection (mm)
	Centre
39	0
40	-1
41	-1
42	-2
43	-3
44	-5
45	-7
46	-9
47	-10
48	-11
49	-13
50	-15
51	-17
52	-19
53	-21
54	-22
55	-24
56	-26
57	-28
58	-30
59	-31
60	-34
61	-35
62	-36
63	-37
64	-38
65	-39
66	-40
67	-40
68	-40
69	-40
70	-41
71	-41
72	-41
73	-40
74	-35
75	-32
76	-30
77	-31
78	-31
79	-28

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Time (minutes)	Deflection (mm)
	Centre
80	-36
81	-38
82	-38
83	-39

The deflection was recorded at the approximate centre of the specimen. Positive readings indicate deflection into the furnace.

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PHOTOGRAPHS

Exposed Face Prior to Test

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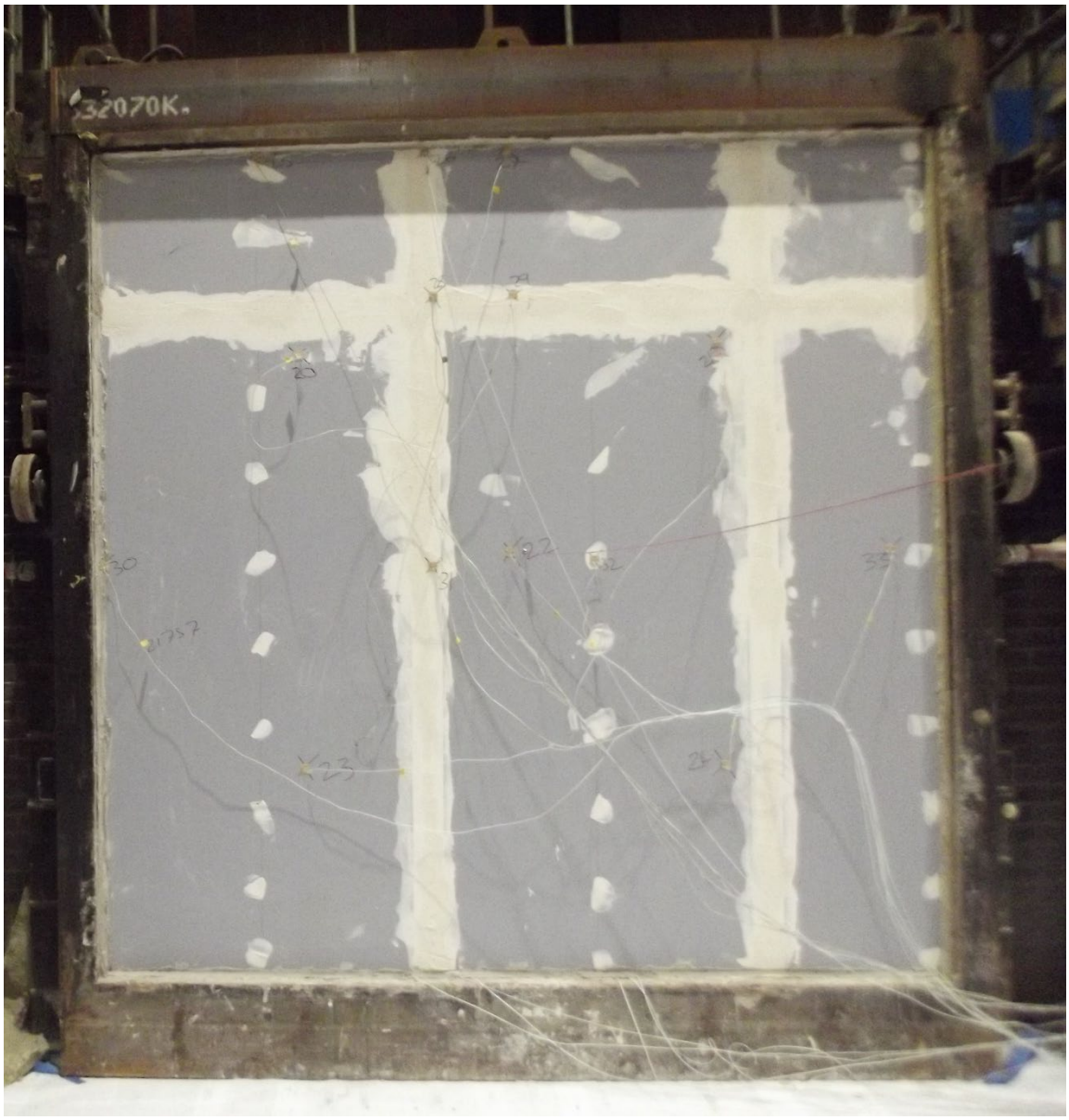
Unexposed Face Prior to Test



UKAS TESTING
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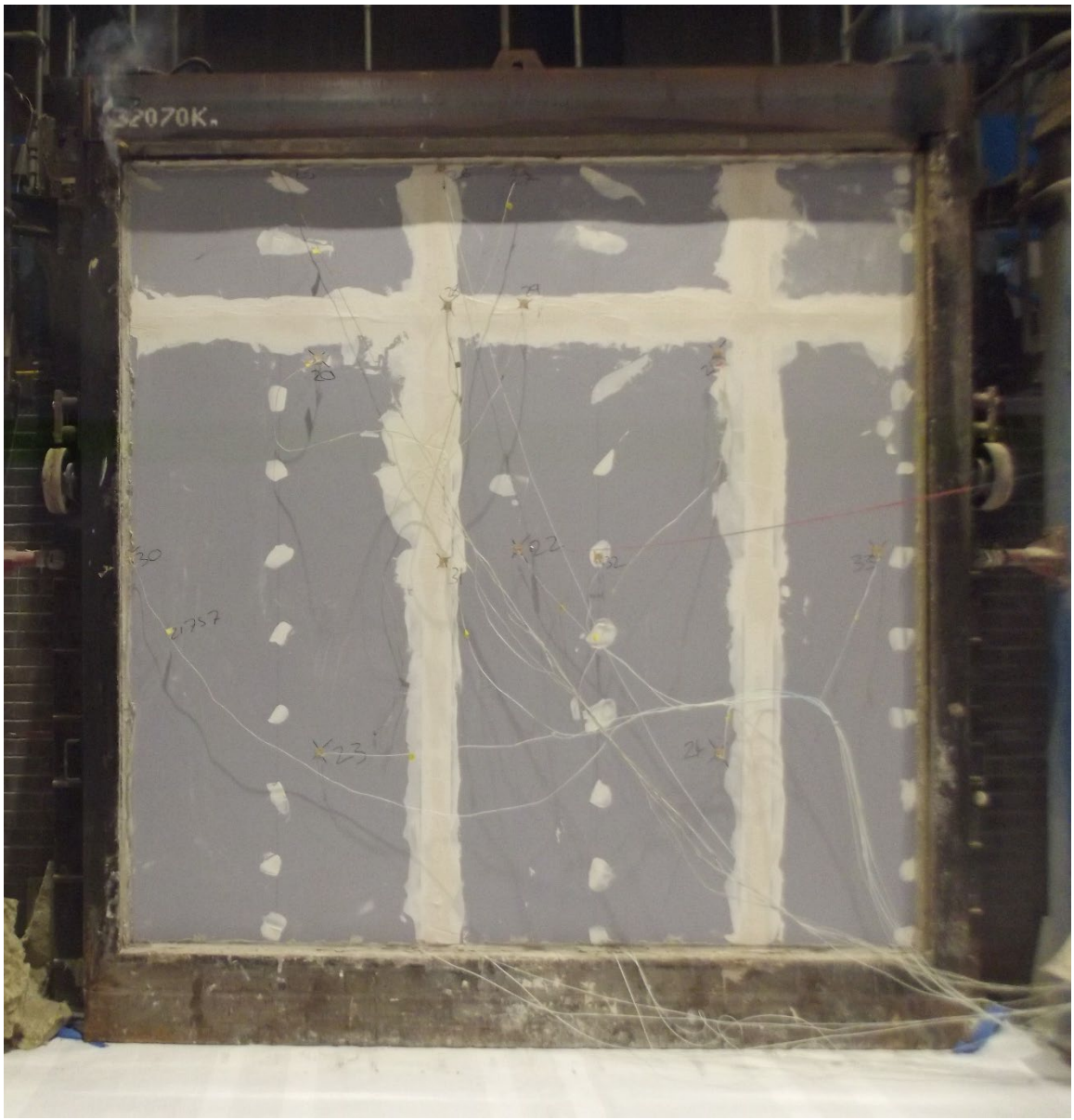
Unexposed Face at 1 Hour



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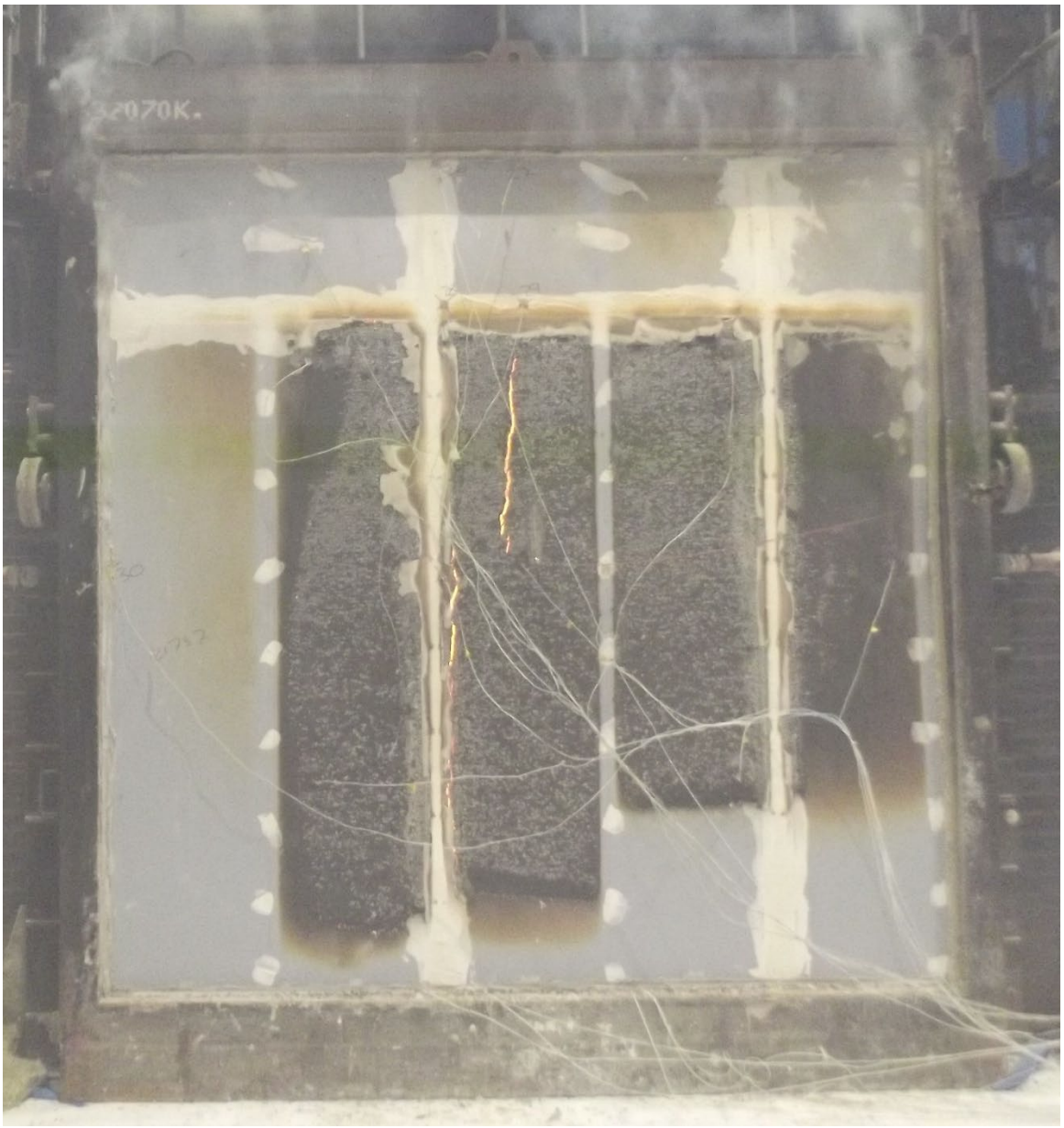
Unexposed Face at 1 Hours, 23 Minutes, at Test Termination



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FIELD OF DIRECT APPLICATION

General

The results of the fire test are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability.

i) Decrease in height from 3000 mm.

ii) Increase in the thickness of the wall (minimum thickness 93 mm).

iii) Increase thickness of component materials (63 mm x 38 mm timber studs).

iv) Decrease in the linear dimensions of the boards but not thickness (≤2400 mm (long) x ≤ 1200 mm (wide) Gyproc SoundBloc).

v) Decrease stud spacing from 600 mm.

vi) Decrease in fixing centres from 300 mm.

vii) Increase in the number of horizontal joints, of the type tested, when tested with one joint not more than (500±150) mm from the top edge.

Extension of Width

For test specimens tested without a supporting construction, the width of an identical construction may be increased as the specimen was tested at nominally 3000 mm wide with one vertical edge without restraint.

Extension of Height

The height of the construction may be increased by 1000 mm under the following conditions:

30 minutes	60 minutes
≤ 100 mm	≤ 100 mm