Warringtonfire
Chiltern House
Stocking Lane
High Wycombe
HP14 4ND
United Kingdom
T: +44 (0)1494 569750
W: www.warringtonfire.com

Title:

The fire resistance performance of an asymmetric non-loadbearing, steel stud partition system , when tested in accordance with BS EN 1364-1:2015 and BS EN 1363-1: 2020

Date Of Test:

28/04/2022

Issue 1
01/03/2023

WF Report No:

WF514562

Prepared for:

Hadley Industries Holding Ltd

PO Box 92
Smethwick
West Midlands
B66 2PA

Approved Body No. 1314

1762

Test Specimen

Summary of Tested Specimen

The partition system comprised a plasterboard clad steel stud frame, built directly into a refractory lined steel restraint frame. The left edge of the partition remained unrestrained.

The size of the partition system was 3000mm high x 3000mm wide x 132mm deep overall.

The head and base track were Hadley Group 72mm metal track, with 70mm C studs at the fixed and free edges. The vertical studs were Hadley Group 60mm I stud and were positioned at 300mm centres, with Hadley Stagger Clips alternating between faces. A Hadley Group Fixing Plate was used at all horizontal board joints on both layers, on both the exposed and unexposed faces. Both faces were clad with two layers of Siniat 15mm GTEC dB board and finished with Knauf tape and fill.

Detailed drawings of the test specimen and a comprehensive description of the test construction based on a detailed survey of the specimen and information supplied by the sponsor of the test are included in the Test Specimen and Schedule of Components sections of this report.

Performance Criteria and Test Results

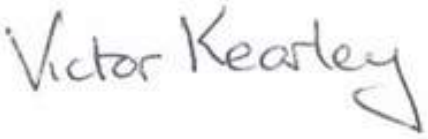
Integrity **Cotton pad** **Sustained flaming** **Gap gauges**	 72 (Seventy-Two) Minutes* 72 (Seventy-Two) Minutes* 72 (Seventy-Two) Minutes*
Thermal Insulation	72 (Seventy-Two) Minutes*
Radiation **(time to 15 kW/m^2)**	72 (Seventy-Two) Minutes*

* No failure of this test criteria was observed at termination of the test at 72 minutes

Date of Test 28/04/2022

Signatories

Report Prepared by:
Stephen Dorme
Technical Officer*



Report Authorised by:
Dr Vic Kearley
Technical Author*

* For and on behalf of **Warringtonfire.**

Report Issued:

Date: 01/03/2023

Revision History

Issue No :	Re-issue Date:
Revised By:	Approved By:
Reason for Revision:	

Issue No :	Re-issue Date:
Revised By:	Approved By:
Reason for Revision:	

CONTENTS PAGE NO.

Test Conditions

Standard

BS EN 1364-1, Fire resistance tests for non-loadbearing elements Part 1: Walls and BS EN 1363-1, Fire resistance tests Part 1: General requirements.

Sampling

Warringtonfire was not involved in factory sampling of the products and materials used for the test specimen described in this report, and as such the results of this test apply to the sample as received.

Installation

The components were received during the month of March 2022. The partition system was constructed and installed directly into a refractory lined steel restraint frame by representatives of **Warringtonfire** to the client's specification.

Conditioning

Warringtonfire stored the specimens in climatic conditions approximate to those expected in normal service, and used the guidelines of Annex F.1 of BS EN 1363 – 1: 2020 to establish a suitable conditioned level where possible.

Ambient Temperature

The ambient air temperature in the vicinity of the test construction was 12ºC at the start of the test with no variation during the test.

Furnace

The furnace was controlled so that its mean temperature complied with the requirements of BS EN 1363-1: 2020 Clause 5.1 using eight plate thermometers, distributed over a plane 100±50 mm from the surface of the test construction.

Thermocouples

Thermocouples were provided to monitor the unexposed surface of the specimen. The output of all instrumentation was recorded at no less than one minute intervals. The locations and reference numbers of the various unexposed surface thermocouples are shown in Figure 1.

Radiation

A water-cooled foil heat-flux meter was used to record the heat radiation from the partition. The heat-flux meter was positioned at mid-height at a distance of 1 metre from the centre of the partition.

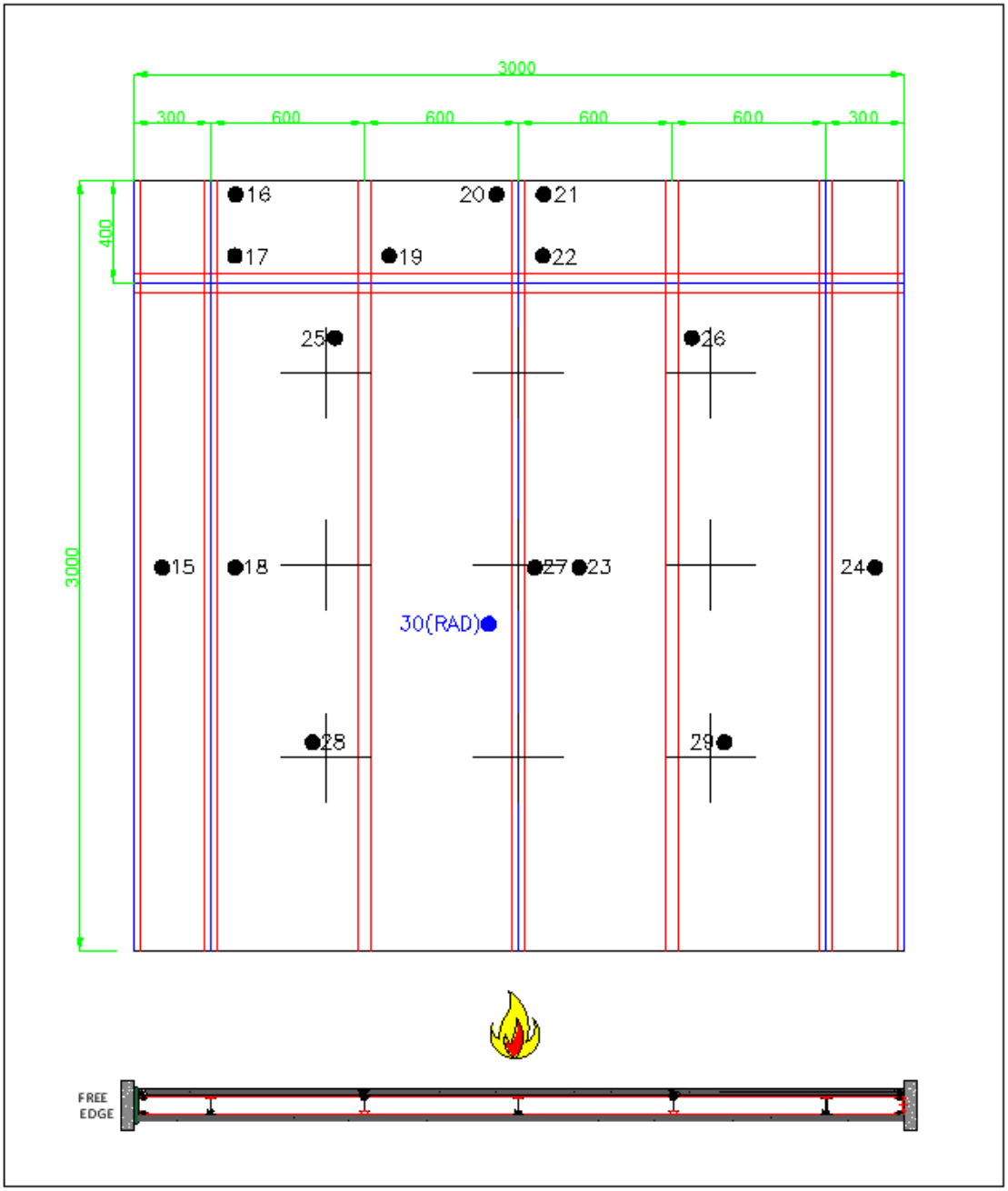
Furnace Pressure

After the first 5 minutes of the test, the furnace pressure was maintained at -1.3 ± 5 Pa and after 10 minutes was maintained at -1.3 ± 3 Pa with respect to atmosphere, at a point 0.5 m from the notional floor level, equating to a pressure of 20 Pa at the head of the wall.

Due to necessary adjustments of the gas and air input to control the furnace, pressures outside the specified tolerances were recorded sporadically at short intervals. As the pressure fluctuations recorded at those intervals did not represent the pressure conditions throughout the test, their effect on the test results can be disregarded.

Test Specimen Drawings

Figure 1 – General elevation of the test construction and thermocouple locations



+ : Furnace Thermocouples
• : Unexposed Face Thermocouples
• : Radiometer

Viewed From Unexposed Face

Figure 2 – Unexposed Face Elevation

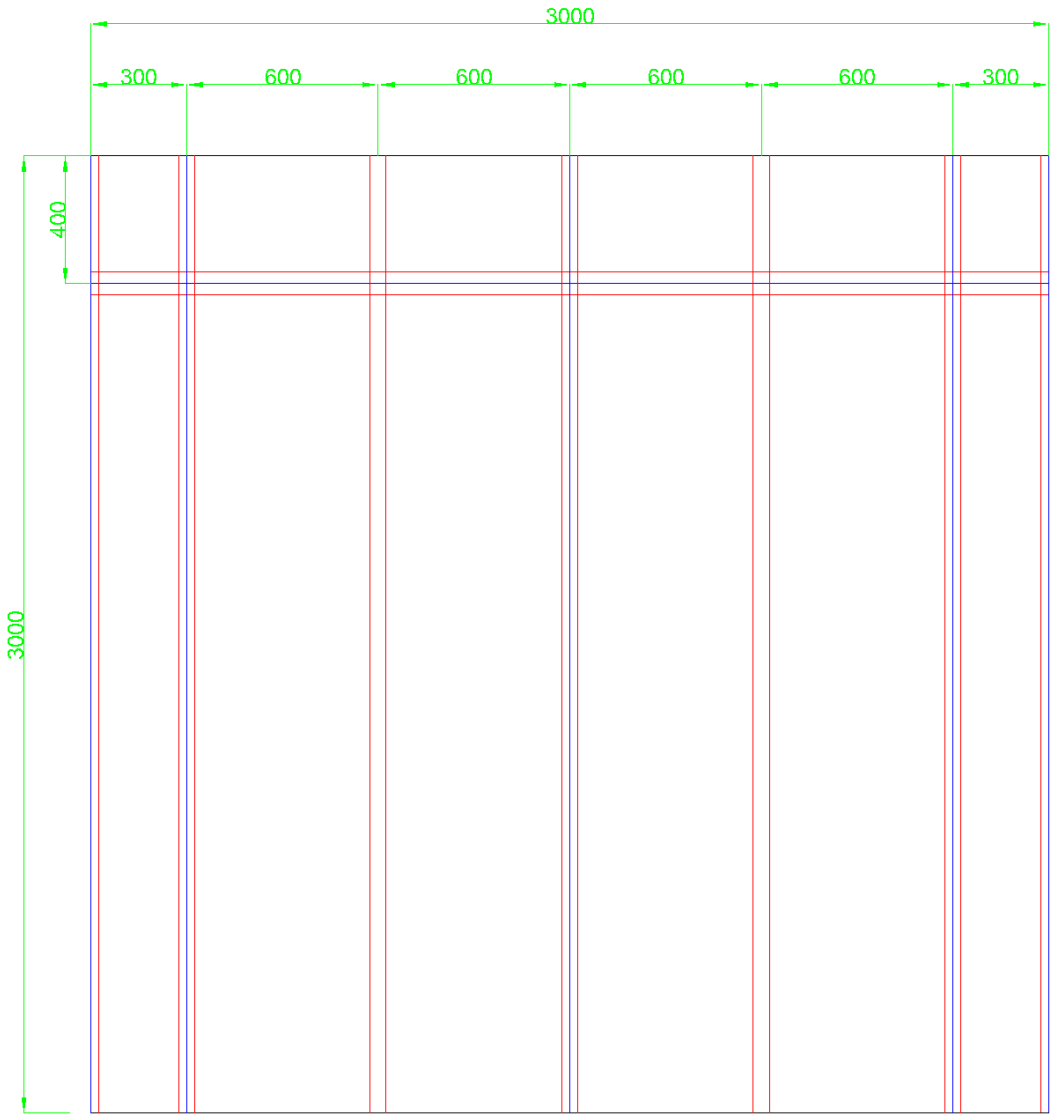


Figure 3 – Exposed Face Elevation

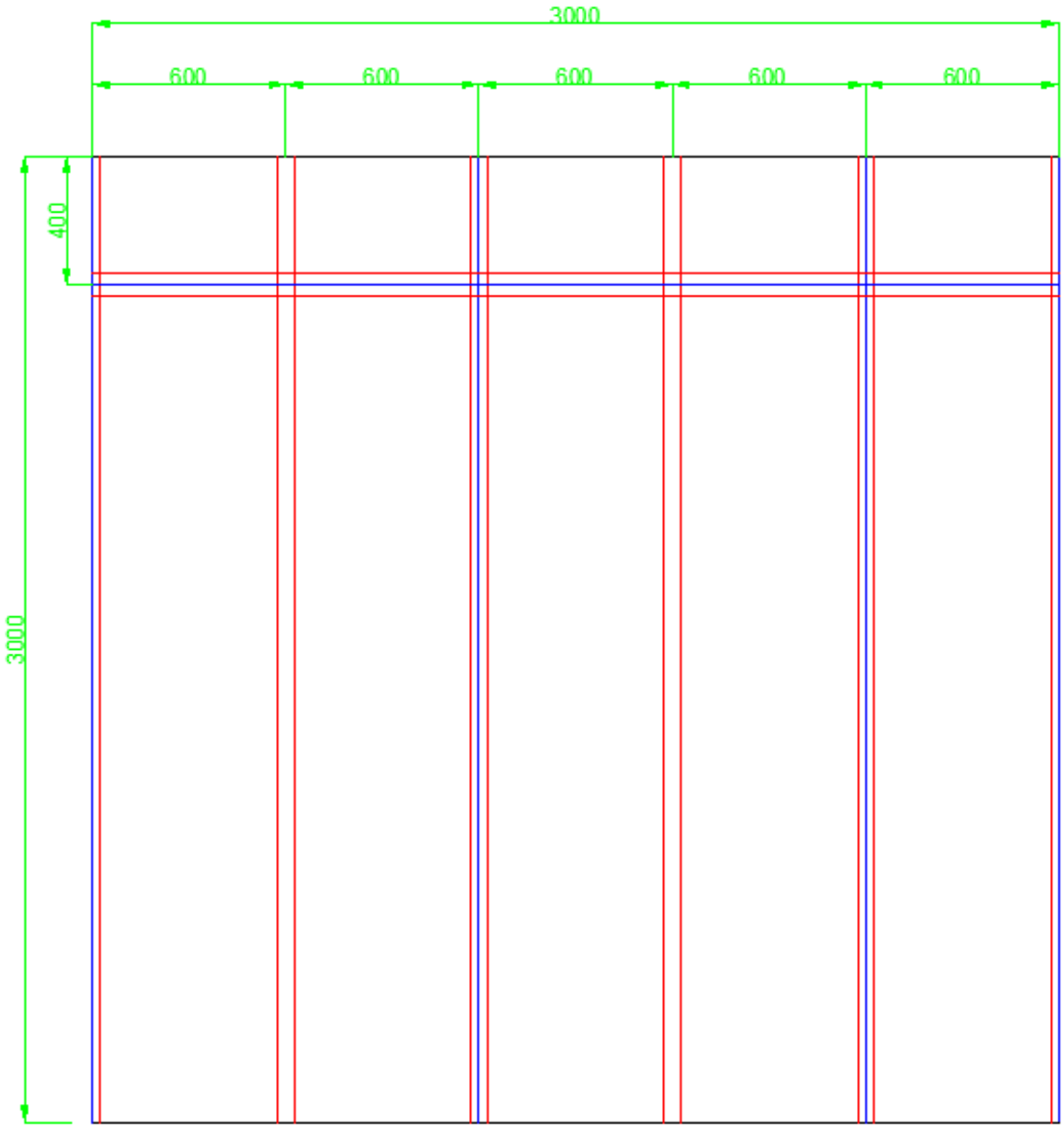


Figure 4 – Vertical Cross Section

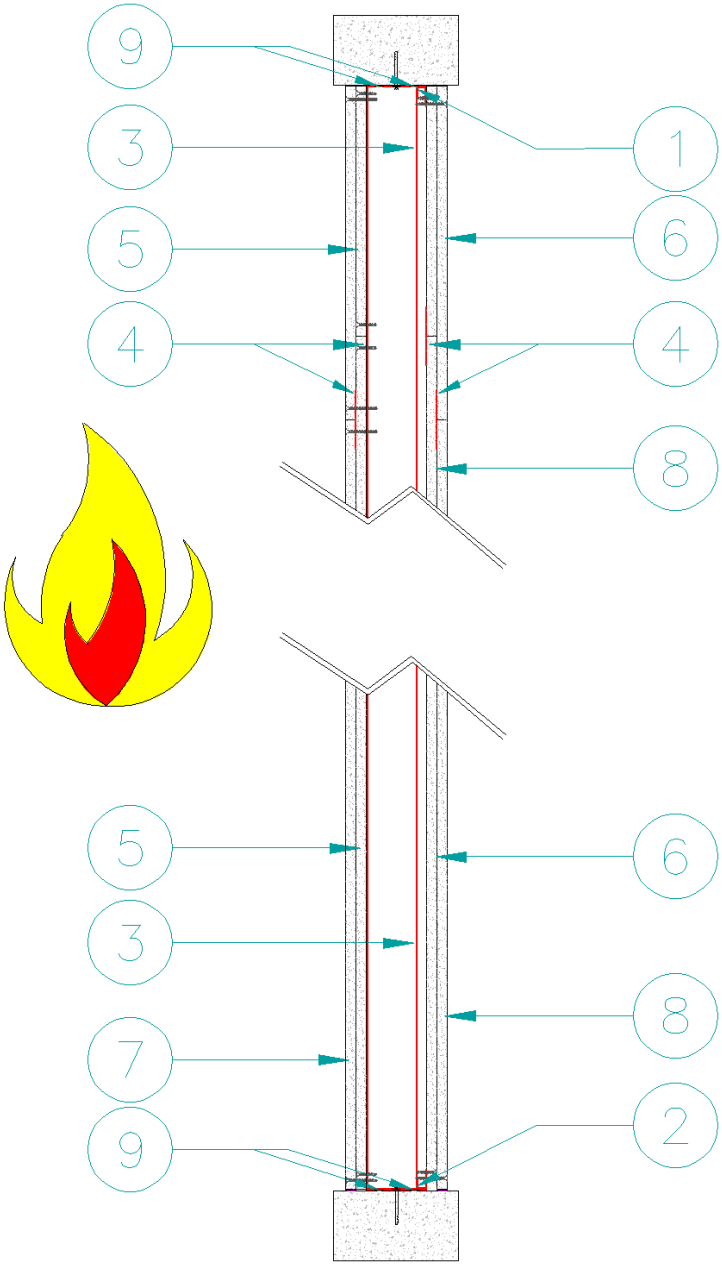
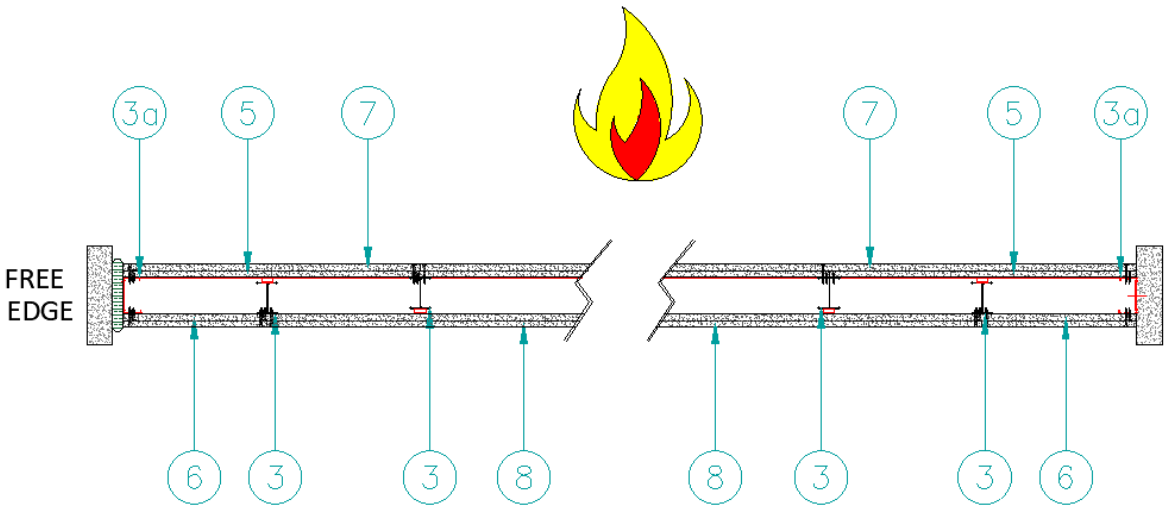


Figure 5 – Horizontal Cross Section



Schedule of Components

(Refer to Figures 1 to 5)
(All values are nominal unless stated otherwise)
* Stated by sponsor, not verified by laboratory

Internal Framing

1. Head track		Description
Manufacturer or Supplier	:	Hadley Group*
Reference	:	72mm Track*
Material	:	Steel
Overall size	:	72mm*
a. Depth	:	72mm*
b. Height	:	32mm*
c. Thickness	:	0.55mm*
Fixing Method to restraint frame and centres	:	Suitable Fixings for substrate at 600mm centres, within 50mm of each end.
Details of fixings to Restraint frame	:	
d. Manufacturer	:	Screwfix
e. Reference	:	Easydrive
f. Type & material	:	Zinc Plated Stainless Steel Concrete Screws
g. Overall size	:	6mm diameter x 100mm long
h. Spacing	:	600mm centres

2. Base track		Description
Manufacturer or Supplier	:	Hadley Group*
Reference	:	72mm Track*
Material	:	Steel
Overall size	:	72mm*
a. Depth	:	72mm*
b. Height	:	32mm*
c. Thickness	:	0.55mm*
Fixing Method to restraint frame and centres	:	Suitable Fixings for substrate at 600mm centres, within 50mm of each end.
Details of fixings to Restraint frame	:	
d. Manufacturer	:	Screwfix
e. Reference	:	Easydrive
f. Type & material	:	Zinc Plated Stainless Steel Concrete Screws
g. Overall size	:	6mm diameter x 100mm long
h. Spacing	:	600mm centres

3. Vertical Studs		Description
Manufacturer or Supplier	:	Hadley Group*
Reference	:	60mm I Stud*
Material	:	Steel
Location and Spacing	:	Studs at 600mm centres, offset by 300mm each side. Studs secured in place with 10mm Hadley Stagger Clips alternating between faces.*
Overall size	:	
a. Depth	:	60mm*
b. Width	:	32mm*
c. Height	:	0.55mm*
Fixing Method to restraint frame and centres (If Applicable)	:	Vertical Studs are not fixed to the restraint frame
Details of fixings to Head and Base Track (If applicable)	:	Vertical Studs are not fixed to the head and base track.

3a. Vertical Studs (Fixed & Free edge)		Description
Manufacturer or Supplier	:	Hadley Group*
Reference	:	70mm C Stud*
Material	:	Steel
Overall size	:	
a. Depth	:	70mm*
b. Width	:	32mm*
c. Height	:	0.55mm*
Fixing Method to restraint frame and centres (Fixed edge only)	:	Only fixed edge vertical stud is fixed to the restraint frame
d. Manufacturer	:	Screwfix
e. Reference	:	Easydrive
f. Type & material	:	Zinc Plated Stainless Steel Concrete Screws
g. Overall size	:	6mm diameter x 100mm long

4. Flat Strap		Description
Manufacturer	:	Hadley Group*
Reference	:	Hadley Fixing plate*
Material	:	Steel
Location	:	Used at all horizontal board joints, positioned 300mm down before first layer of board is fixed, screwed to vertical stud using 2No wafer head screws detailed below. Then positioned 400mm down between first and second layer of board, not fixed to vertical studs, but fixed to first layer of board through second layer of board.
Overall size	:	75mm x 2400mm
a. Depth	:	2400mm
b. Height	:	75mm
c. Thickness	:	0.55mm
Fixing Method to vertical studs – 1st layer	:	Wafer Head Screws
Details of fixings to vertical studs – 1st layer	:	
d. Manufacturer	:	Evolution*
e. Reference	:	Evolution Drywall Wafer Head Screws*
f. Type & material	:	Wafer Head Screws*
g. Overall size	:	4.2mm diameter x 13mm long*
h. Location	:	Fixed to Studs

Cladding Material

5. First Layer of board applied to the internal framing exposed face		Description
Manufacturer	:	Siniat
Reference	:	15mm GTEC dB Board
Material	:	Plasterboard
Batch Reference/ Number	:	90376*
Individual board dimension	:	15mm x 3000mm x 1200mm
Overall dimension	:	3000mm x 3000mm
Moisture Content (%)	:	Unknown
Board Weight (kg/m^2)	:	37.4
Application method	:	Jack-Point Screws
Fixing Method to restraint frame and centres	:	Jack-Point Screws at 300mm centres
Details of fixings to Internal framing	:	
a. Manufacturer	:	Evolution*
b. Reference	:	Evolution Jack Point Screws*
c. Type & material	:	Jack Point Screws*
d. Overall size	:	3.9mm x 32mm*
e. Spacing	:	300mm centres

6. First Layer of board applied to the internal framing unexposed face		Description
Manufacturer	:	Siniat
Reference	:	15mm GTEC dB Board
Material	:	Plasterboard
Batch Reference/ Number	:	90376*
Individual board dimension	:	15mm x 3000mm x 1200mm
Overall dimension	:	3000mm x 3000mm
Moisture Content (%)	:	Unknown
Board Weight (kg/m^2)	:	37.4
Application method	:	Jack-Point Screws
Fixing Method to restraint frame and centres	:	Jack-Point Screws at 300mm centres
Details of fixings to Internal framing	:	
a. Manufacturer	:	Evolution*
b. Reference	:	Evolution Jack Point Screws*
c. Type & material	:	Jack Point Screws*
d. Overall size	:	3.9mm x 32mm*
e. Spacing	:	300mm centres

7. Second Layer of board applied to the internal framing exposed face		Description
Manufacturer	:	Siniat
Reference	:	15mm GTEC dB Board
Material	:	Plasterboard
Batch Reference/ Number	:	90376*
Individual board dimension	:	15mm x 3000mm x 1200mm
Overall dimension	:	3000mm x 3000mm
Moisture Content (%)	:	Unknown
Board Weight (kg/m^2)	:	37.4
Application method	:	Jack-Point Screws
Fixing Method to restraint frame and centres	:	Jack-Point Screws at 300mm centres
Details of fixings to Internal framing	:	
a. Manufacturer	:	Evolution*
b. Reference	:	Evolution Jack Point Screws*
c. Type & material	:	Jack Point Screws*
d. Overall size	:	3.9mm x 42mm*
e. Spacing	:	300mm centres

8. Second Layer of board applied to the internal framing unexposed face		Description
Manufacturer	:	Siniat
Reference	:	15mm GTEC dB Board
Material	:	Plasterboard
Batch Reference/ Number	:	90376*
Individual board dimension	:	15mm x 3000mm x 1200mm
Overall dimension	:	3000mm x 3000mm
Moisture Content (%)	:	Unknown
Board Weight (kg/m^2)	:	37.4
Application method	:	Jack-Point Screws
Fixing Method to restraint frame and centres	:	Jack-Point Screws at 300mm centres
Details of fixings to Internal framing	:	
a. Manufacturer	:	Evolution*
b. Reference	:	Evolution Jack Point Screws*
c. Type & material	:	Jack Point Screws*
d. Overall size	:	3.9mm x 42mm*
e. Spacing	:	300mm centres

Sealing Materials

9. Sealant 1		Description
Manufacturer	:	Rockwool
Reference	:	212902*
Material	:	Intumescent Mastic
Location	:	Two continuous beads underneath head and base track, and also fixed edge. There is one continuous bead around the perimeter of the wall between the framework and the first layer of board, then another between the first and second layer of board, then finally a third on the second layer of board where the board meets the restraint frame.
Nominal Application thickness	:	10mm

Tape and Fill

10. Jointing tape		Description
Manufacturer	:	Knauf
Reference	:	Jointing Tape
Material	:	Paper Tape
Location	:	Placed on all board joints on the second layer only, no tape is used on the first layer.

11. Jointing compound		Description
Manufacturer	:	Knauf
Reference	:	Fill & Finish 20kg
Material	:	Mixture of calcium carbonate, perlite, water based polymer emulsion, thickeners and water
Location	:	Used on all board joints on the second layer only, no jointing compound is used on the first layer. Also applied to screw heads on the second layer of board.
Nominal Application thickness	:	2mm, then tape applied then another 2mm

Test Observations

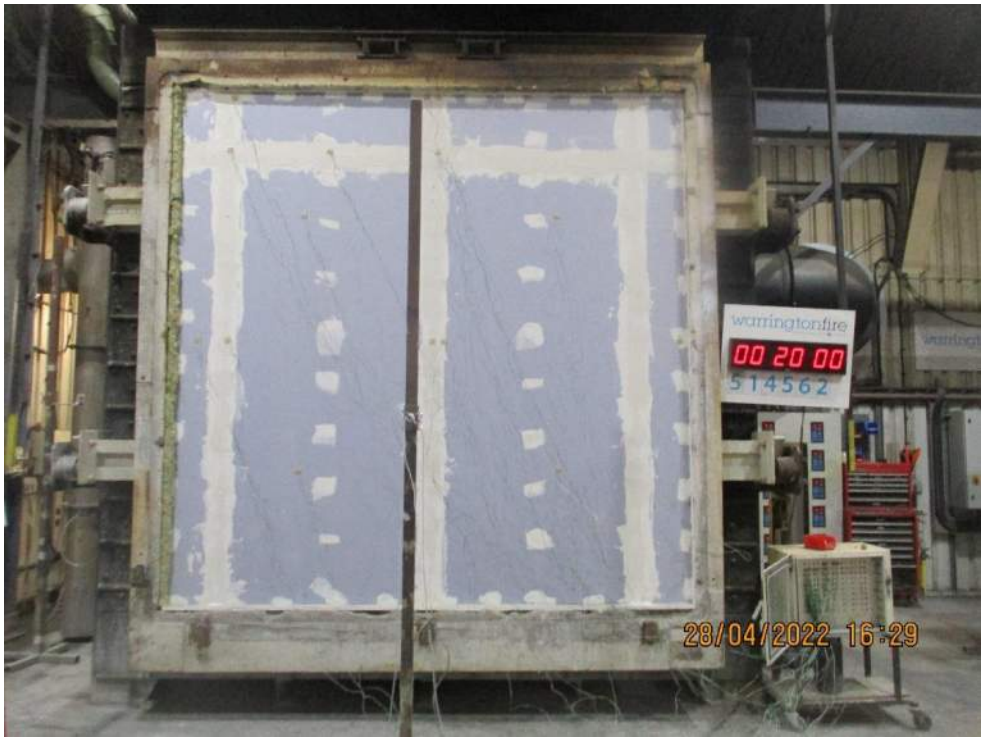
Time (minutes)	All observations are from the unexposed face unless noted otherwise.
00:00	The test has started.
2.30	There is smoke issuing at the centre of the fixed edge.
6.34	There is smoke issuing at the top left corner of the wall.
15.00	There is no visible change.
20.00	There is no visible change.
23.30	On the exposed side, the gaps at the joints have opened up by approximately 7mm.
30.00	There is no visible change.
41.15	On the exposed side, the gaps at the joints have opened up by approximately 23mm.
51.22	There is cracking beginning to appear on the joints.
61.15	The first layer on the exposed face is falling off.
72:00	Test terminated.

Test Photographs

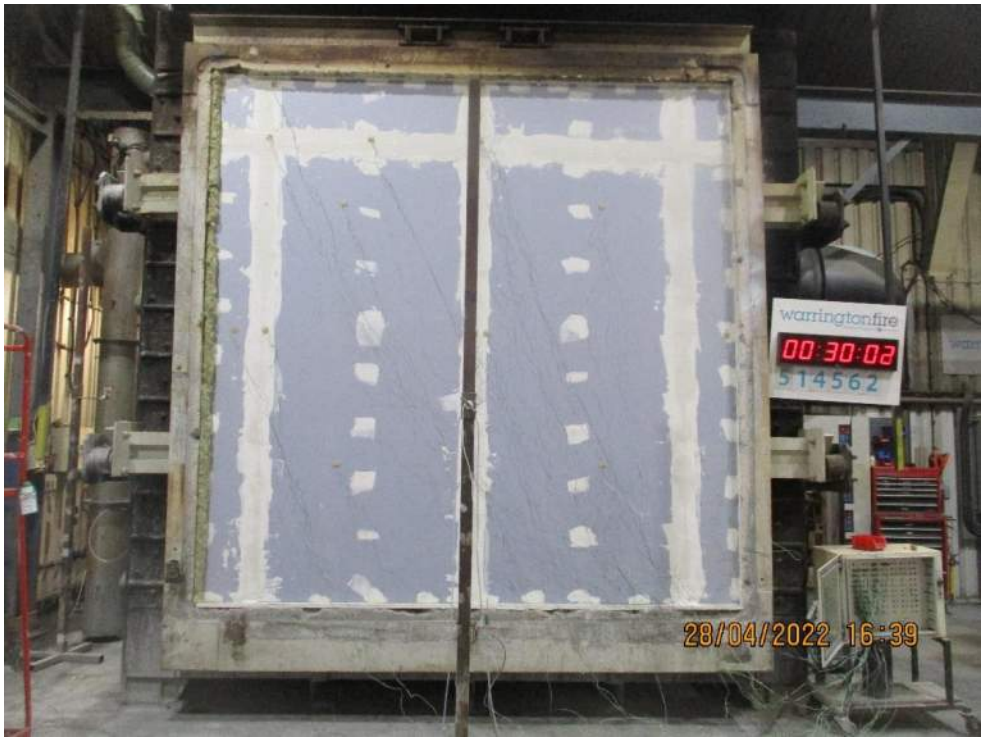
The unexposed face prior to testing

The unexposed face after a test duration of 10 minutes

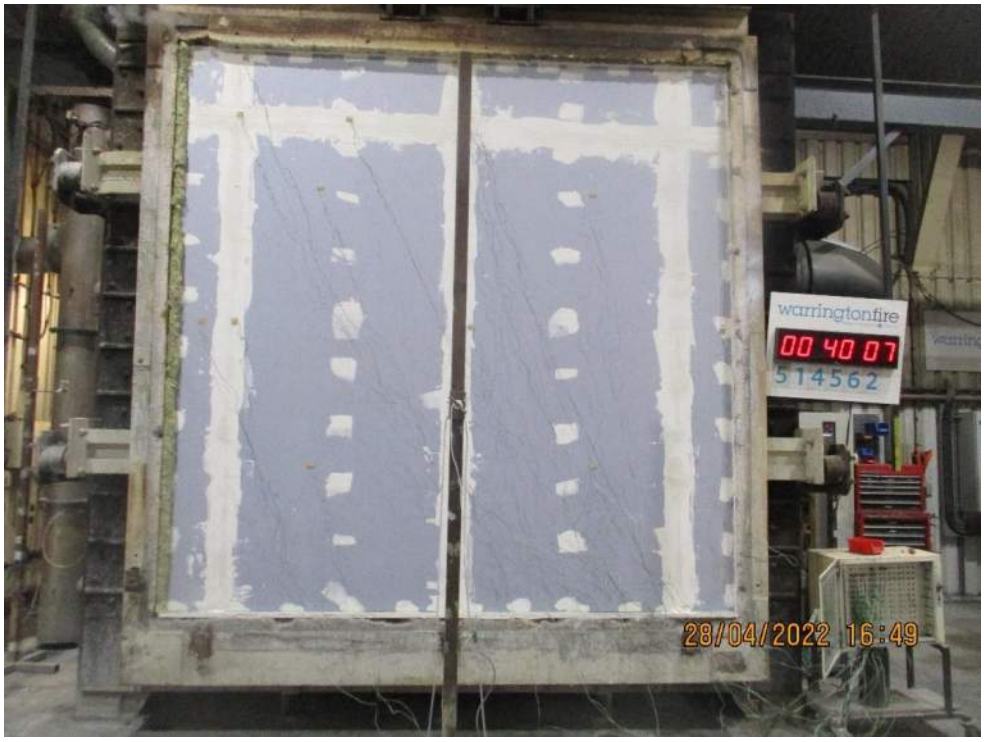
The unexposed face after a test duration of 20 minutes



The unexposed face after a test duration of 30 minutes



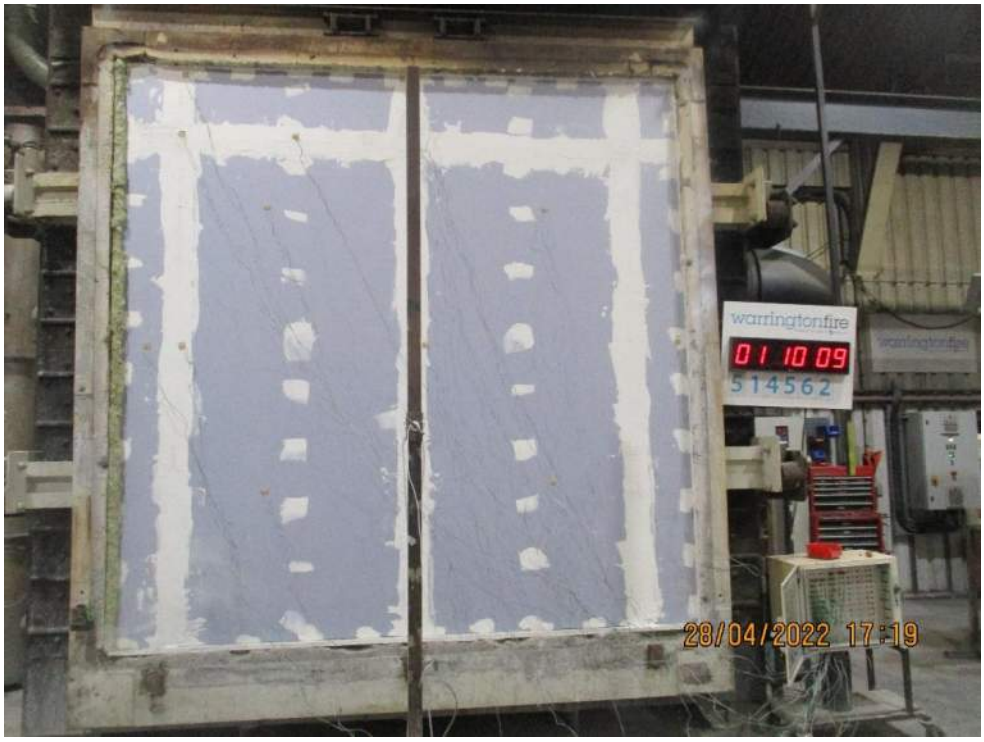
The unexposed face after a test duration of 40 minutes



The unexposed face after a test duration of 50 minutes

The unexposed face after a test duration of 60 minutes

The unexposed face after a test duration of 70 minutes



Temperature and Deflection Data

Mean Furnace Temperature, Together With The Temperature/Time Relationship Specified In BS EN 1363-1: 2020

Time	Mean Furnace temperature	ISO 834
min	°C	°C
0	20	20
1	216	349
2	384	445
3	512	502
4	573	544
5	582	576
6	599	603
7	629	626
8	656	645
9	671	663
10	682	678
11	693	693
12	700	705
13	713	717
14	724	728
15	733	739
16	741	748
17	752	757
18	760	766
19	767	774
20	775	781
21	782	789
22	789	796
23	796	802
24	802	809
25	809	815
26	815	820
27	822	826
28	829	831
29	835	837
30	840	842
31	847	847
32	853	851
33	883	856
34	866	860
35	861	865
36	863	869

Time	Mean Furnace temperature	ISO 834
min	°C	°C
37	864	873
38	873	877
39	878	881
40	883	885
41	887	888
42	892	892
43	895	896
44	898	899
45	901	902
46	905	906
47	909	909
48	913	912
49	916	915
50	918	918
51	921	921
52	924	924
53	929	927
54	932	930
55	936	932
56	937	935
57	941	938
58	943	940
59	946	943
60	949	945
61	952	948
62	954	950
63	956	953
64	960	955
65	963	957
66	964	960
67	967	962
68	969	964
69	970	966
70	972	968
71	975	971
72	974	973

Individual And Mean Temperatures Recorded On The Unexposed Face

Time	Chan 25	Chan 26	Chan 27	Chan 28	Chan 29	Mean
min	°C	°C	°C	°C	°C	°C
0	14	14	11	13	11	13
1	14	14	11	13	11	13
2	14	14	11	13	11	13
3	14	14	12	13	11	13
4	14	14	12	13	11	13
5	14	14	11	13	11	13
6	14	14	12	13	11	13
7	14	14	12	13	11	13
8	14	14	12	13	11	13
9	14	14	11	13	11	13
10	14	14	12	13	11	13
11	14	14	11	13	11	13
12	14	14	12	13	11	13
13	14	14	12	13	11	13
14	14	14	12	13	11	13
15	15	15	12	13	11	13
16	15	15	12	14	11	13
17	16	16	12	14	11	14
18	16	17	13	14	11	14
19	17	18	13	15	11	15
20	18	19	14	15	11	15
21	19	20	14	16	11	16
22	20	21	15	16	11	17
23	21	22	16	17	11	17
24	22	24	16	18	11	18
25	23	25	17	18	11	19
26	25	26	18	19	11	20
27	26	28	19	20	11	21
28	27	29	20	21	11	22
29	28	30	20	21	11	22
30	30	32	21	22	11	23
31	31	33	22	24	11	24
32	32	34	23	24	11	25
33	34	36	24	25	11	26
34	35	37	25	26	11	27
35	36	38	26	27	11	28
36	37	40	26	28	11	28
37	38	41	27	29	11	29
38	40	42	28	30	11	30
39	41	43	29	31	11	31
40	42	44	30	32	11	32
41	43	45	30	33	11	32
42	44	47	31	34	11	33
43	45	47	32	35	11	34
44	45	49	33	36	11	35

Time	Chan 25	Chan 26	Chan 27	Chan 28	Chan 29	Mean
min	°C	°C	°C	°C	°C	°C
45	46	49	34	38	11	36
46	47	50	35	39	11	36
47	48	51	36	40	11	37
48	48	52	36	40	11	37
49	49	52	37	41	11	38
50	49	53	38	42	11	39
51	50	53	38	43	11	39
52	50	54	39	44	11	40
53	51	54	40	45	12	40
54	51	55	41	45	11	41
55	51	55	41	46	11	41
56	51	55	42	46	11	41
57	51	55	42	47	11	41
58	52	55	42	47	11	41
59	52	55	43	48	12	42
60	52	56	43	49	12	42
61	52	56	43	49	12	42
62	52	56	44	49	11	42
63	53	56	44	50	11	43
64	53	57	44	50	11	43
65	53	57	45	51	12	44
66	54	58	45	52	12	44
67	54	58	46	52	12	44
68	54	59	46	52	11	44
69	55	59	47	53	12	45
70	56	60	48	53	11	46
71	56	60	48	54	12	46
72	56	61	50	55	12	47

Individual Temperatures Recorded On The Maximum Thermocouples

Time	Chan 15	Chan 16	Chan 18	Chan 19	Chan 20	Chan 21	Chan 22	Chan 23	Chan 24
min	°C	°C	°C	°C	°C	°C	°C	°C	°C
0	12	12	11	12	12	12	12	12	13
1	12	12	11	12	12	12	12	12	13
2	12	12	11	12	12	12	12	12	13
3	12	12	11	12	12	12	12	12	13
4	12	12	11	12	12	12	12	12	13
5	12	13	11	12	12	12	12	12	13
6	12	13	11	12	12	13	12	12	13
7	12	13	11	12	12	13	12	12	13
8	12	14	11	12	12	13	12	12	13
9	12	14	11	12	13	13	12	12	13
10	12	14	11	12	13	14	12	12	13
11	12	15	11	12	13	14	12	12	13
12	12	16	11	12	13	15	12	12	13
13	13	17	12	12	14	16	12	12	14
14	13	18	12	12	14	17	12	13	14
15	14	19	12	13	15	18	12	13	14
16	15	20	13	13	16	19	13	13	15
17	16	22	14	14	17	21	13	14	16
18	17	23	15	15	18	22	13	14	17
19	19	25	16	15	19	23	13	15	18
20	20	26	17	17	21	25	14	16	19
21	21	28	18	18	22	27	14	17	21
22	23	29	19	19	23	28	15	18	22
23	24	31	21	21	25	30	15	19	24
24	26	33	22	22	26	31	16	20	25
25	27	34	23	24	28	33	16	21	27
26	28	35	24	25	29	34	16	22	28
27	29	37	25	27	30	35	17	23	30
28	30	38	26	28	32	37	17	24	31
29	31	39	27	30	33	38	18	25	33
30	32	40	28	31	34	39	18	26	34
31	33	41	29	33	35	40	19	27	35
32	34	42	30	34	36	41	19	28	36
33	35	43	31	35	37	42	19	30	38
34	36	44	31	36	38	42	20	31	39
35	38	45	32	37	39	43	20	32	40
36	38	46	33	38	40	43	20	33	41
37	39	46	33	39	40	44	21	34	42
38	41	47	34	40	41	45	21	35	43
39	41	48	35	40	42	45	22	35	44
40	42	49	36	41	43	46	21	37	45
41	43	49	37	41	43	46	21	38	46
42	44	50	37	42	44	47	21	39	47
43	45	50	38	43	45	47	23	40	48
44	46	51	39	43	45	48	23	41	49
45	47	52	40	43	46	48	24	42	50
46	48	52	40	44	47	49	24	43	51

Time	Chan 15	Chan 16	Chan 18	Chan 19	Chan 20	Chan 21	Chan 22	Chan 23	Chan 24
min	°C	°C	°C	°C	°C	°C	°C	°C	°C
47	49	53	41	44	47	49	24	44	52
48	49	53	42	44	48	50	24	45	52
49	50	53	42	44	48	50	24	45	53
50	50	54	43	44	49	50	25	46	54
51	50	54	43	44	49	51	24	46	54
52	51	55	44	44	49	51	25	47	55
53	52	55	45	44	50	51	25	48	56
54	52	55	45	44	50	52	26	49	56
55	52	55	46	43	50	52	26	49	56
56	52	55	46	43	50	52	26	49	57
57	53	56	47	43	50	52	25	50	57
58	53	56	47	43	50	52	25	50	57
59	53	56	47	43	50	52	26	51	58
60	53	56	48	43	50	52	25	51	58
61	53	57	48	43	50	53	25	51	58
62	53	57	48	44	50	53	25	51	58
63	53	57	48	44	51	53	26	51	58
64	53	58	48	44	51	54	26	51	58
65	53	58	49	44	52	54	26	52	58
66	54	58	49	45	52	55	26	53	58
67	54	59	50	45	53	56	27	53	58
68	54	59	50	45	54	57	26	53	58
69	55	60	51	46	55	58	26	54	58
70	55	60	51	47	55	59	27	54	58
71	55	61	52	47	56	60	27	55	58
72	55	62	53	48	57	61	27	56	58

Note: Channel 17 has been discounted due to malfunction

Recorded Radiation Intensity From The Partition Specimen

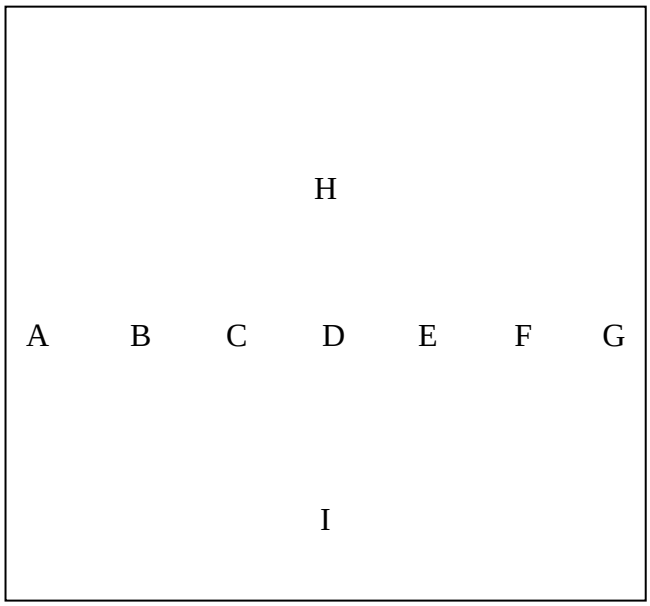
Time	Chan 30
min	kW/m²
0	0.2
1	0.2
2	0.2
3	0.2
4	0.2
5	0.2
6	0.2
7	0.2
8	0.2
9	0.2
10	0.2
11	0.2
12	0.2
13	0.2
14	0.2
15	0.2
16	0.2
17	0.2
18	0.2
19	0.2
20	0.2
21	0.2
22	0.2
23	0.2
24	0.2

Time	Chan 30
min	kW/m²
25	0.2
26	0.2
27	0.2
28	0.2
29	0.2
30	0.2
31	0.2
32	0.2
33	0.2
34	0.2
35	0.2
36	0.2
37	0.3
38	0.3
39	0.3
40	0.3
41	0.3
42	0.3
43	0.3
44	0.3
45	0.3
46	0.3
47	0.3
48	0.3
49	0.3

Time	Chan 30
min	kW/m²
50	0.3
51	0.3
52	0.3
53	0.3
54	0.3
55	0.3
56	0.3
57	0.3
58	0.3
59	0.3
60	0.3
61	0.3
62	0.3
63	0.3
64	0.3
65	0.3
66	0.3
67	0.3
68	0.3
69	0.3
70	0.3
71	0.3
72	0.3

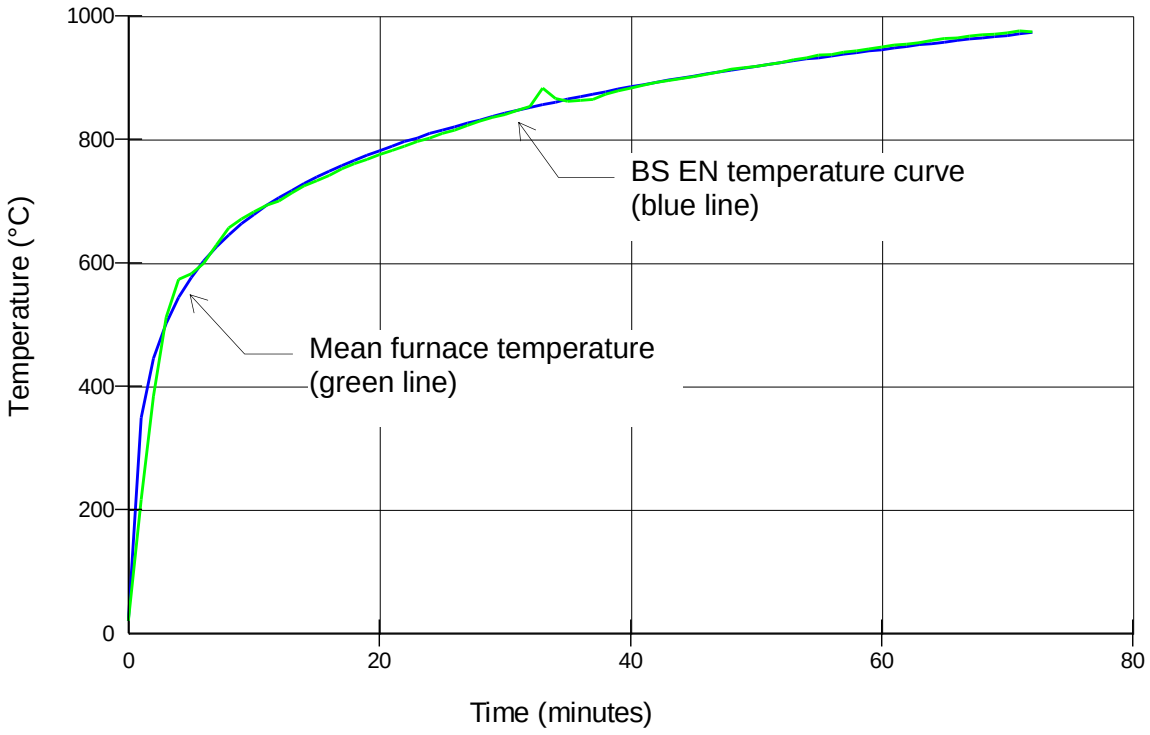
Horizontal Deflections Of The Partition Specimen

The deflection of the specimen partition was measured from the centre point, and at mid height on each stud. The readings have been tabulated below. A positive reading represents deflection in towards the furnace. A negative reading represents deflection away from the furnace.

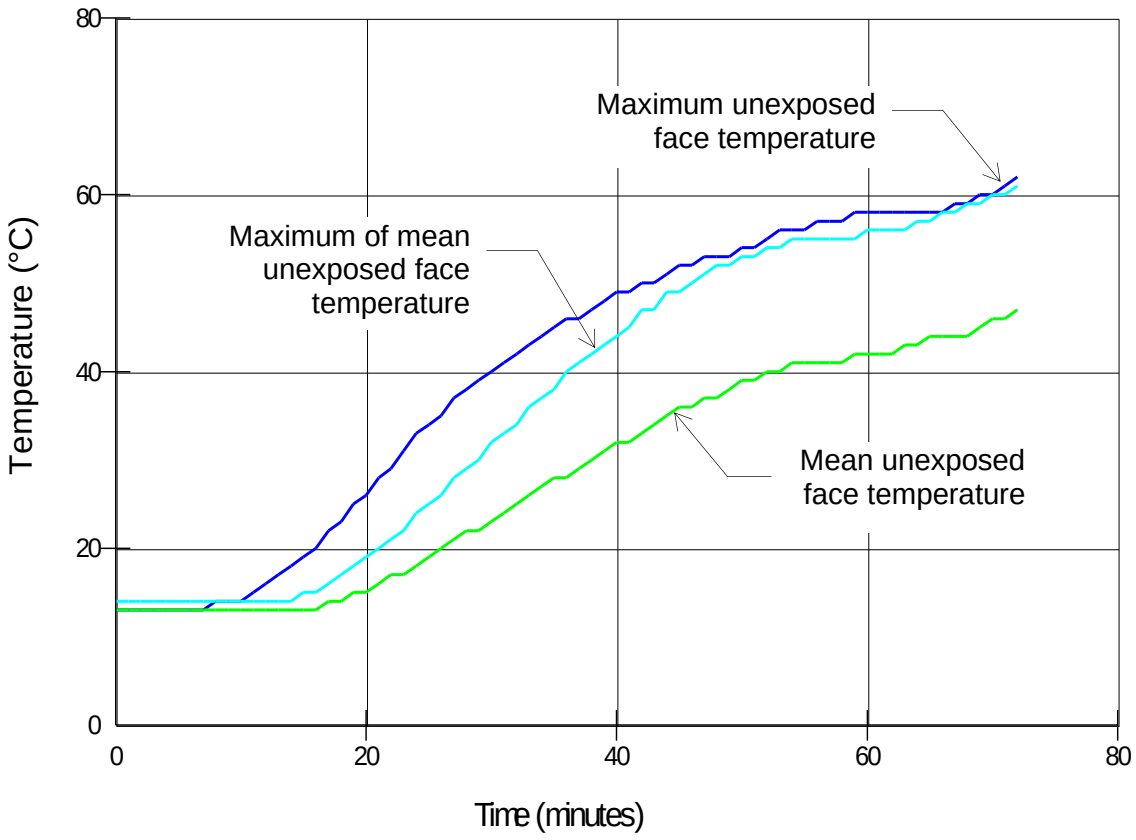


TIME mins	A	B	C	D	E	F	G	H	I
10	0	2	3	3	3	1	0	1	1
20	1	2	1	1	2	0	-2	1	-2
30	0	3	0	-2	0	-2	-2	-1	-4
40	-1	0	-2	-4	-2	-4	-3	-2	-6
50	0	0	-1	-4	-1	-4	-3	-2	-7
60	2	2	4	1	4	-2	-2	5	-4
70	9	15	19	19	19	7	-1	15	15

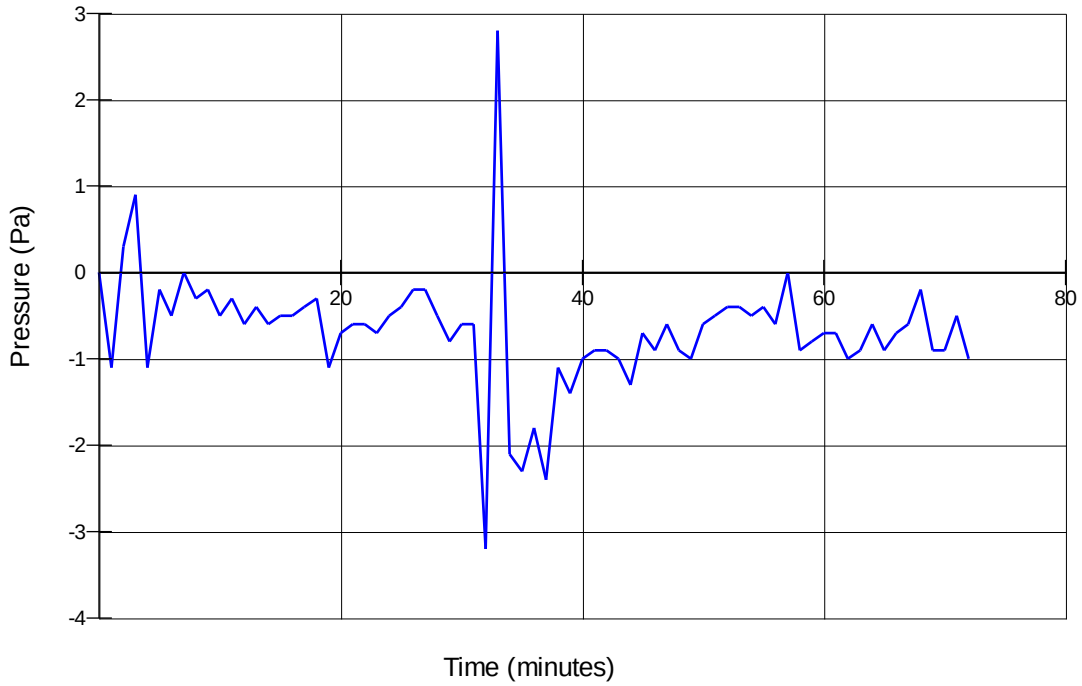
Graph Showing Mean Furnace Temperature, Together With The Temperature/Time Relationship Specified In BS EN 1363-1: 2020



Graph Showing Mean and Maximum Temperatures Recorded On The Unexposed Surface



Graph Showing Recorded Furnace Pressure At 0.5 m From The Notional Floor Level



On-going Implications

Limitations

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

The results only relate to the behaviour of the element of construction under the particular conditions of 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 specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over 5 years old should be considered by the user. **Warringtonfire** will be able to offer, on behalf of the test sponsor, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test 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.

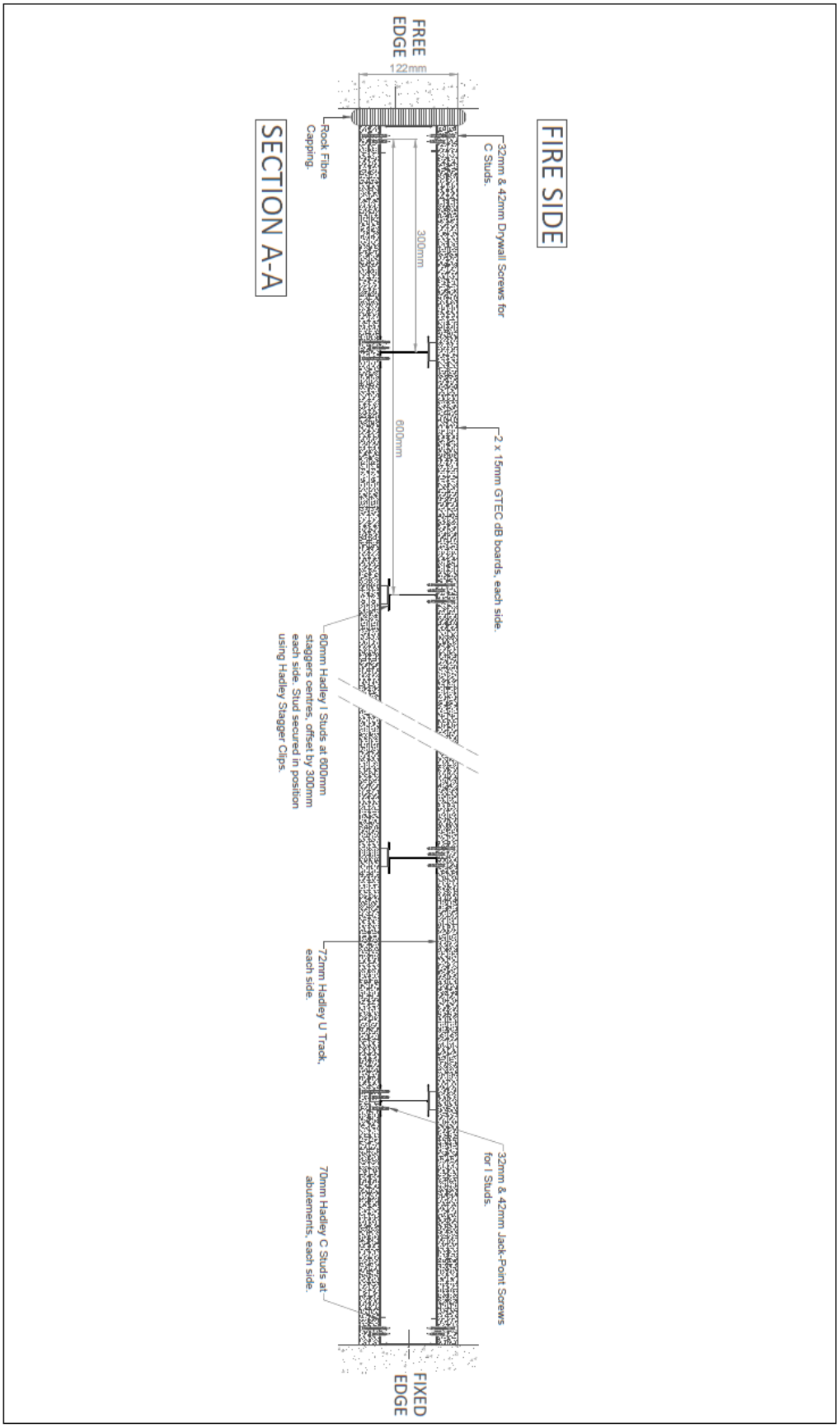
EGOLF

Certain aspects of some fire test specifications are open to different interpretations. EGOLF have identified a number of such areas and have agreed Resolutions which define common agreement of interpretations between fire test laboratories which are members of the Groups. Where such Resolutions are applicable to this test they have been followed.

Field of Direct Application

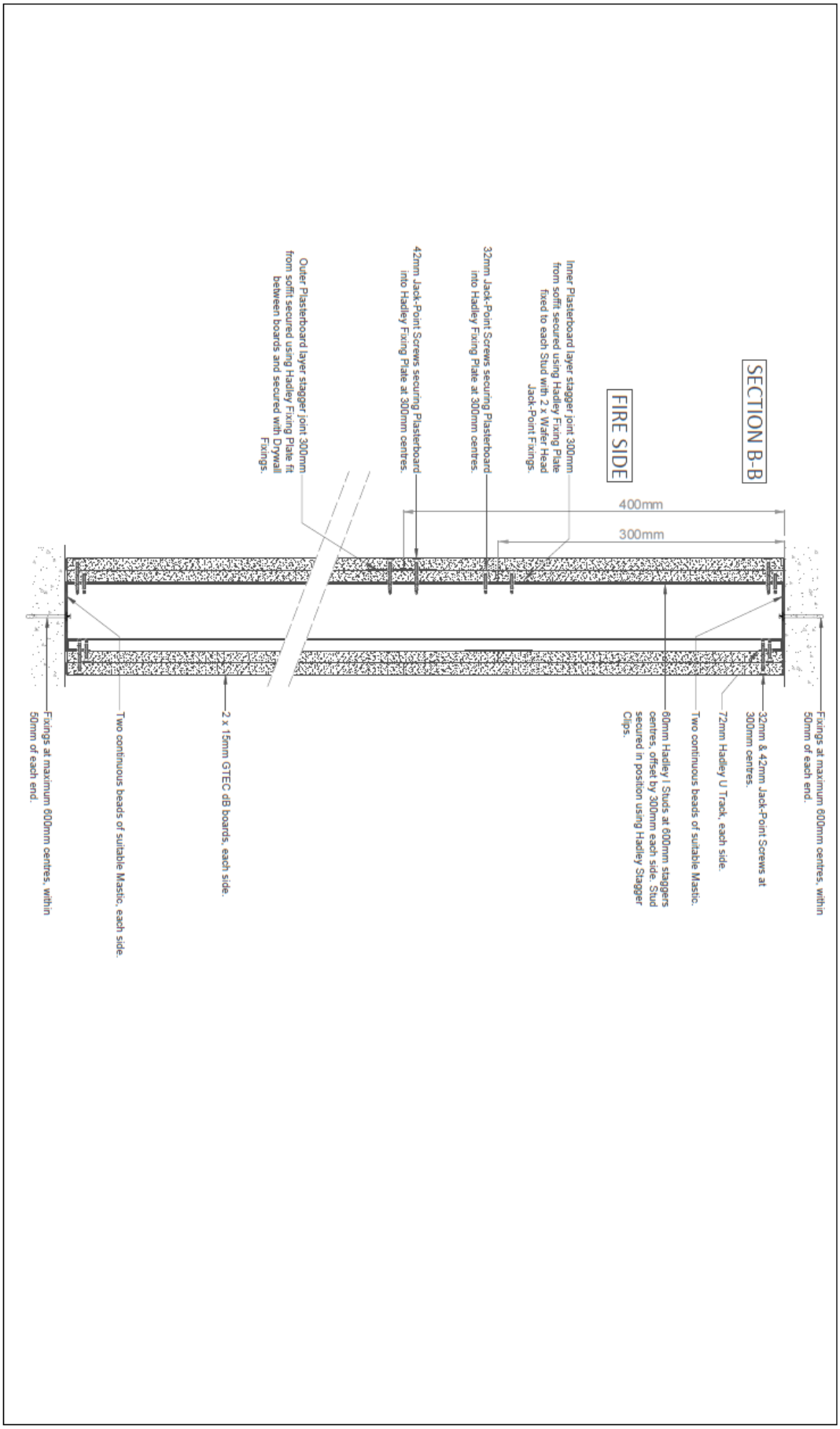
BS EN 1363-1:2020, Fire resistance tests - Part 1: General requirements, states within Section 12.1, Clause v) that “The field of direct application of the results for the specimen being evaluated, either in the form of the full text from the appropriate standard, or only those clauses which are relevant for the specimen tested” shall be included within the test report. The full text of the field of direct application for the results of the specimen being evaluated herein, can be found within the appropriate test standard, which is referenced on the front cover of this report.

Client Drawings



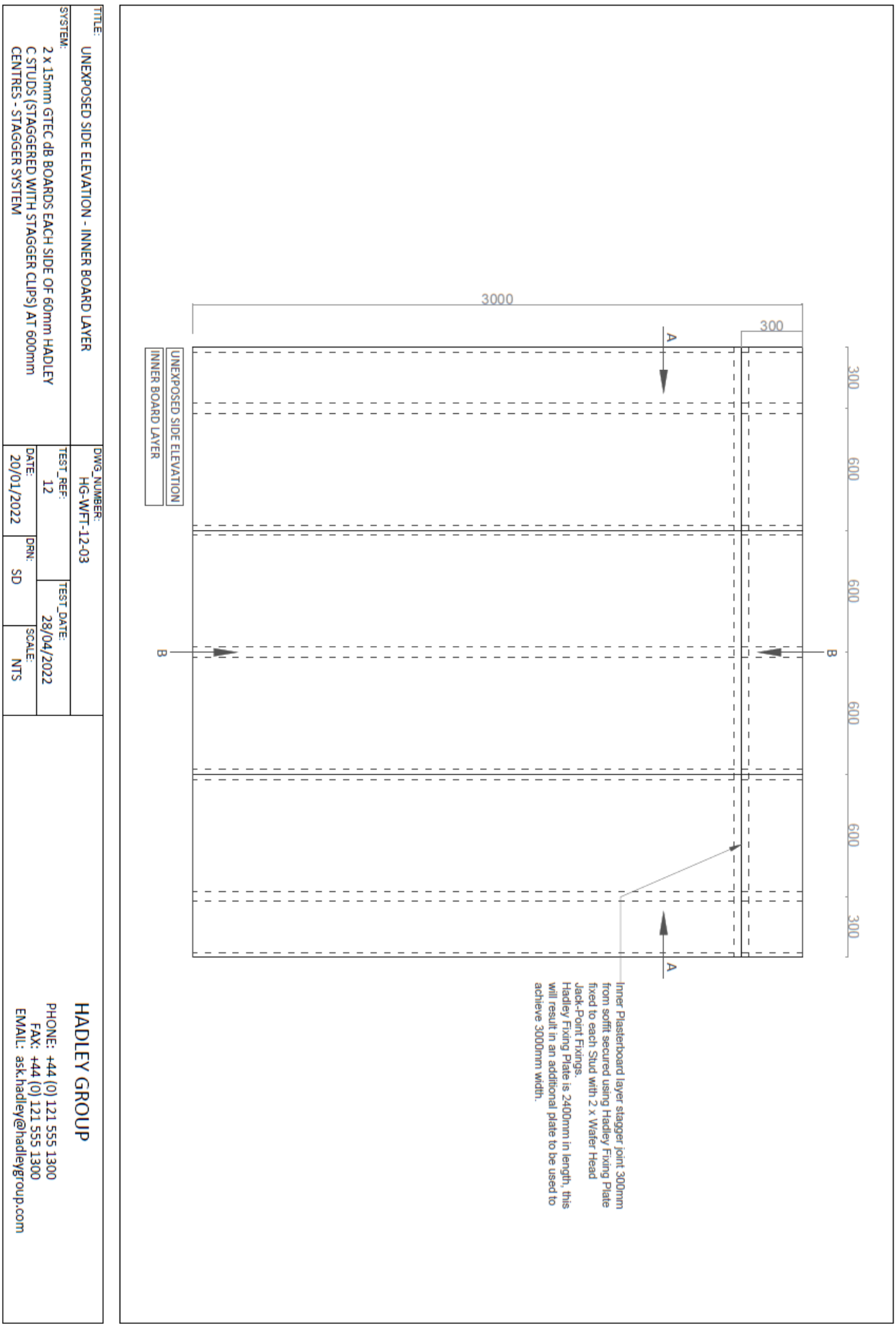
TITLE:	HORIZONTAL CROSS SECTIONS (SECTION A-A)
SYSTEM:	2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM
DWG_NUMBER:	HG-WFT-12-01
TEST_REF:	12
TEST_DATE:	28/04/2022
DRN:	SD
DATE:	20/01/2022
SCALE:	NTS

HADLEY GROUP
PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadley@hadleygroup.com



TITLE: VERTICAL CROSS SECTIONS (SECTION B-B)		DWG_NUMBER: HG-WFT-12-02	
SYSTEM: 2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM	TEST_REF: 12	TEST_DATE: 28/04/2022	
	DATE: 20/01/2022	DRN: SD	SCALE: NTS

HADLEY GROUP
PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadley@hadleygroup.com



TITLE: UNEXPOSED SIDE ELEVATION - INNER BOARD LAYER

SYSTEM: 2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM

DWG_NUMBER: HG-WFT-12-03

TEST_REF: 12

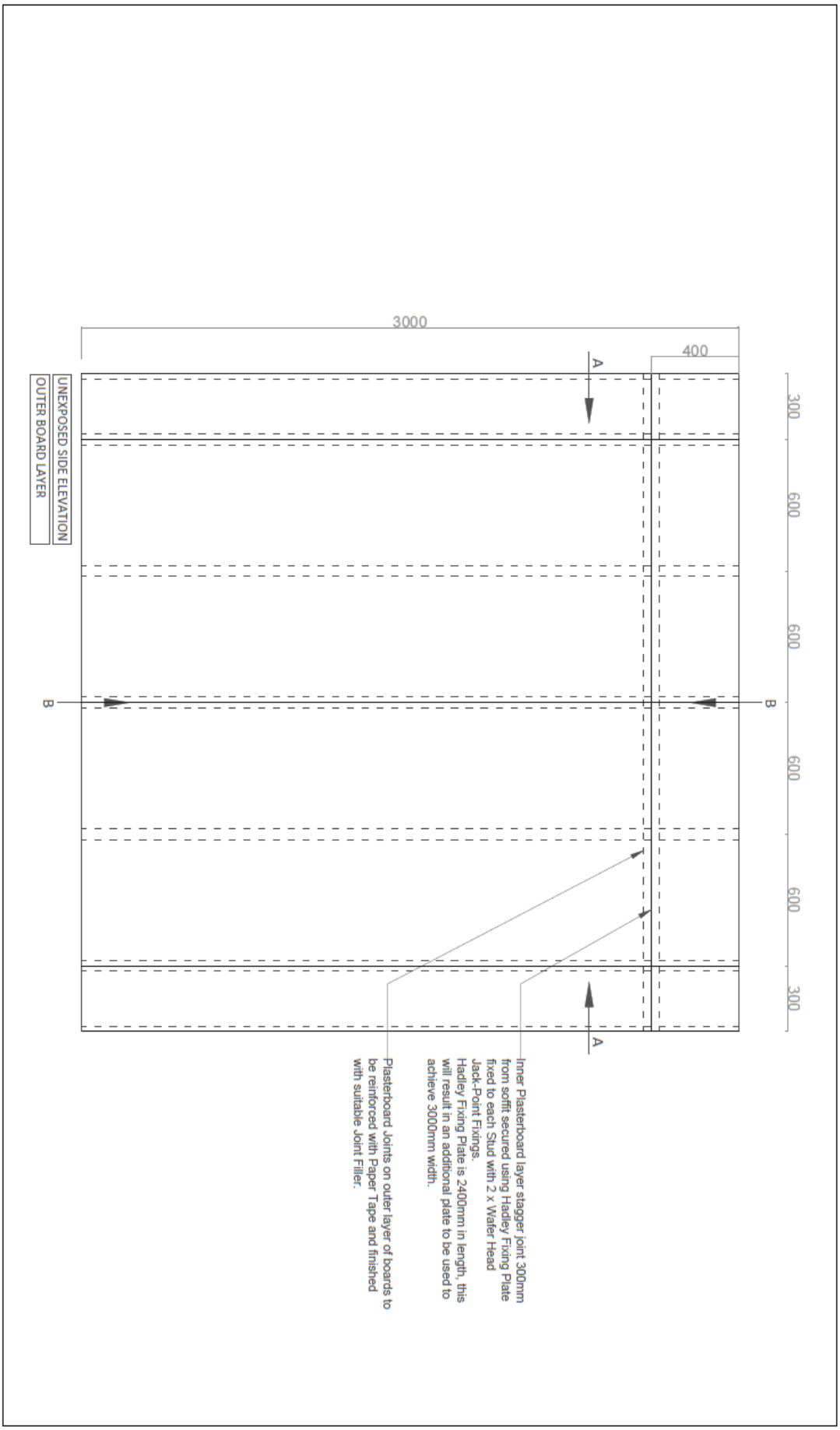
TEST_DATE: 28/04/2022

DRN: SD

DATE: 20/01/2022

SCALE: NTS

HADLEY GROUP
PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadley@hadleygroup.com



TITLE: UNEXPOSED SIDE ELEVATION - OUTER BOARD LAYER

DWG_NUMBER: HG-WFT-12-04

SYSTEM: 2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM

TEST_REF: 12

TEST_DATE: 28/04/2022

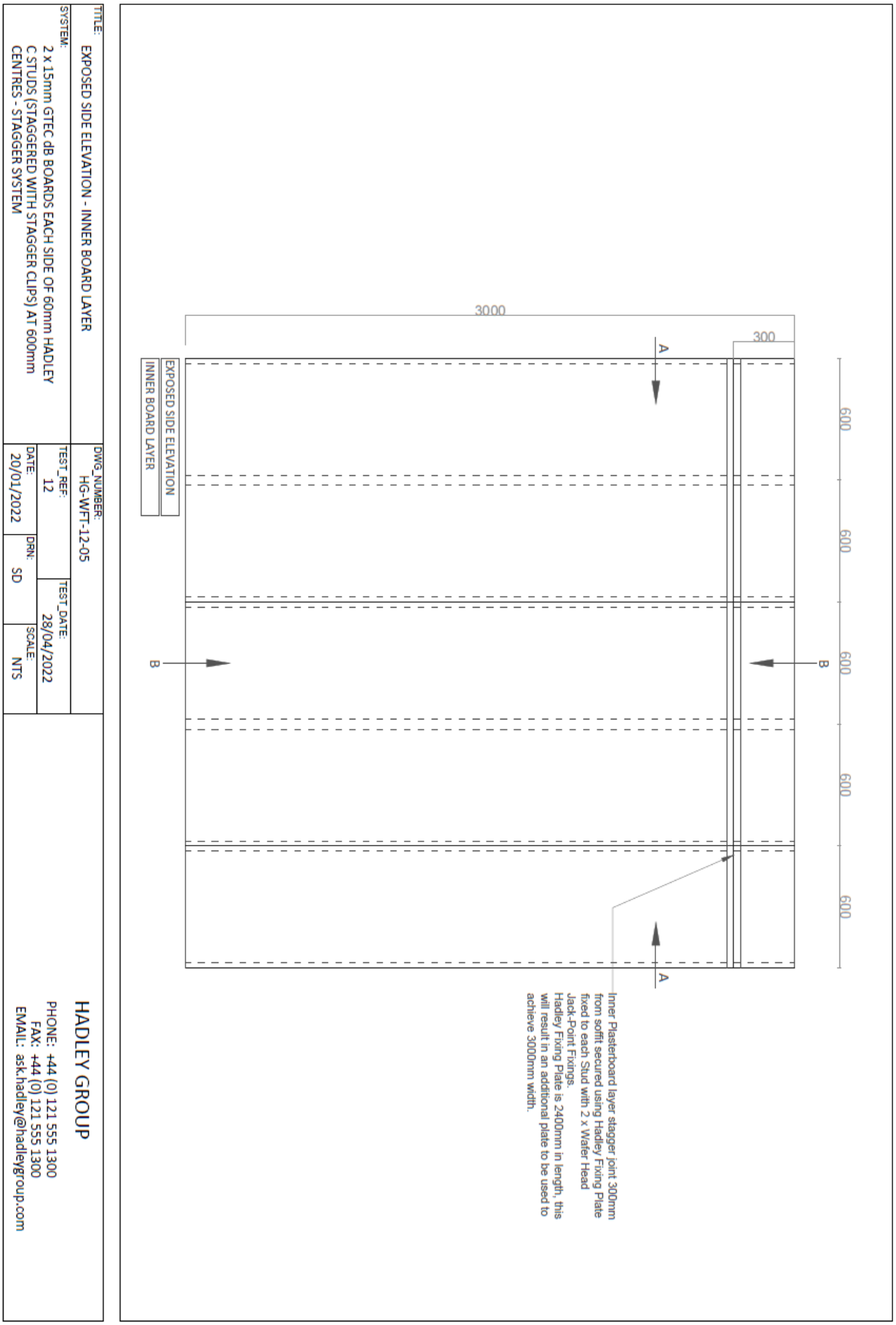
DRN: SD

SCALE: NTS

DATE: 20/01/2022

HADLEY GROUP

PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadley@hadleygroup.com



TITLE: EXPOSED SIDE ELEVATION - INNER BOARD LAYER

DWG_NUMBER: HG-WFT-12-05

SYSTEM: 2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM

TEST_REF: 12

TEST_DATE: 28/04/2022

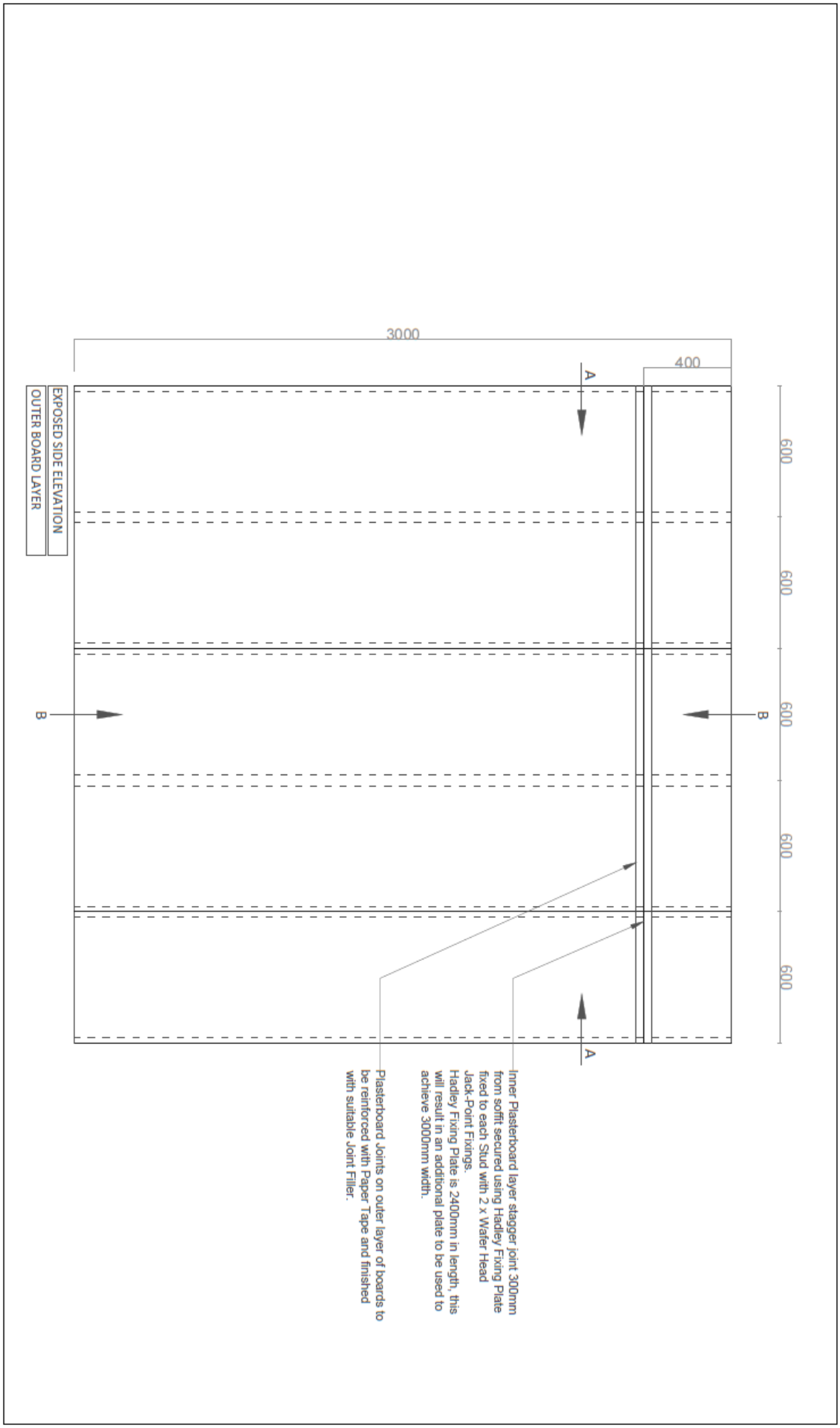
DRN: SD

SCALE: NTS

DATE: 20/01/2022

HADLEY GROUP

PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadley@hadleygroup.com


3000
400
600
600
600
600
600
A
A
B
B
EXPOSED SIDE ELEVATION
OUTER BOARD LAYER
Inner Plasterboard layer stagger joint 300mm from soffit secured using Hadley Fixing Plate fixed to each Stud with 2 x Wafer Head Jack-Point Fixings. Hadley Fixing Plate is 2400mm in length, this will result in an additional plate to be used to achieve 3000mm width.
Plasterboard Joints on outer layer of boards to be reinforced with Paper Tape and finished with suitable Joint Filler.
TITLE:
EXPOSED SIDE ELEVATION - INNER BOARD LAYER
SYSTEM:
2 x 15mm GTEC dB BOARDS EACH SIDE OF 60mm HADLEY C STUDS (STAGGERED WITH STAGGER CLIPS) AT 600mm CENTRES - STAGGER SYSTEM
DWG_NUMBER:
HG-WFT-12-06
TEST_REF:
12
TEST_DATE:
28/04/2022
DRN:
SD
DATE:
20/01/2022
SCALE:
NTS
HADLEY GROUP
PHONE: +44 (0) 121 555 1300
FAX: +44 (0) 121 555 1300
EMAIL: ask.hadleygroup@hadleygroup.com