TEST REPORT
EU FACADE TEST 6

Name of sponsor:	Fælledby P/S		
Product name:	EU facade test draft 6		
File no.:	PGC10035A	**Revision no.:**	0
Test date:	21-03-2024	**Date:**	14-05-2024
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Ref:	MMN / CHD		

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Client information

Client: Fælledby P/S

Address: c/o Cobblestone A/S

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2500, Valby

Denmark

Content

Date of test

The test was conducted on 21-03-2024.

Purpose of test

Examination of the fire performance of a façade using the large fire exposure.

The test specimen has been subjected to a fire test in accordance with the following draft standards:

ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE

Draft revision 6
Draft Date: 2022 – 11 – 18

The test was not performed accredited.

Test specimen

The trade name and sponsors identification mark are stated below:

Trade name: BFUH-6
Identification mark: None

The components for the test specimen were delivered and mounted by the sponsor.

Drawings and description

Details of the construction are shown in the enclosed documentation as stated below:

Type	Drawing No.	Dated	Subject
Drawing	1	04-03-2024	Facaderamme
Drawing	2	04-03-2024	Vindspærre
Drawing	3	04-03-2024	L Afstandslister
Drawing	4	04-03-2024	V Afstandslister
Drawing	5	04-03-2024	Facadebeklædning
Drawing	DE01	04-03-2024	Detaljer
Drawing	GKB-118818	15-02-2024	Overdel, 2 mm plade
Drawing	GKB-118819	15-02-2024	Underdel, 2 mm plade
Drawing	GKB-116645-1	02-11-2023	2 mm plade
Drawing	GKB-116647-indv	13-10-2023	Indv. Hj. Bund, 2 mm plade
Drawing	GKB-116646-indv	13-10-2023	Indv. Hj. Top, 2 mm plade
Drawing	GKB-116646-indv	13-10-2023	Indv. Hj. Top, 2 mm plade

Drawing GKB-116647-indv 13-10-2023 Indv. Hj. Bund, 2 mm plade

The documentation is supplied and stamped by DBI - Danish Institute of Fire and Security Technology

Description

The test specimen consisted of the components described in the following. DBI inspected the components during mounting, the test and after the test.

The sponsor carried out the selection of the products for the test specimen as well as the mounting.

External measures:	Height: 7600 mm	Main width: 3180 mm	Wing width: 1500 mm	Thickness: 283.5 mm With flame deflector: 588.5 mm

The test specimen was a ventilated façade made of vertical wood cladding, mounted on horizontal formwork.
Flame deflector profiles were installed above fire chamber and windows on the main facade. The façade wing consisted of 100 mm thick aerated concrete.

The build-up of the façade system is shown on the attached drawings, supplied by the sponsor. The construction of the facade is described from the first layer on the aerated concrete frame.

First Layer: The first layer consisted of prefabricated cassettes which were built from untreated construction wood C24 with dimensions 45 x 195 mm, which had a nominal density of 480 kg/m³. A 45 x 95 wooden beam with a nominal density of 480 kg/m³ was mounted on the bottom construction wood. There were 3 cassettes in total, and they were mounted with 289 mm horizontal gap in between. See drawing No. 1.

The backside of the prefabricated cassettes was closed with 12 mm OSB board with a nominal density of 550 kg/m³.

Fixing of first layer: The construction woods C24 were fixed to each other with steel angles designated Simpson Strong-tie ABR9020 with screws designated Paslode DS413 4.0 x 40 mm at 4 corners of the cassette.

The T- conjunctions of the construction woods were fixed with nails designated TJEP GR 3.1 x 90 mm with a c/c distance of 20 mm.

The OSB boards were fixed on the prefabricated cassette with nail designated Tjep ZE 2.5 x 65 ring. The c/c distance of the nails was approx. 150 mm.

The cassettes were put on 2 ACW 155 Simpson strong-tie console bracket which were fixed to the aerated concrete frame with 4 screws designated Spit ACS CSK ø8 x 90/30 mm. One screw designated Paslode 5.0 x 40 mm was used to connect the cassette and each console bracket. All the other edges of prefabricated cassettes were fixed to the aerated concrete with steel angles designated Paslode 90 x 90 x 65. 4 screws designated Paslode 5.0 x 40 mm were used to connect the angle to the wood. The angles were fixed to the aerated concrete with one screw designated Spit ACS CSK ø8 x 90/30 mm. The angles were mounted with a c/c distance of approx. 600 mm in horizontal and 900 mm in vertical. The gap between the cassettes and the concrete was approx. 15 mm.

Gaps in the first layer: The gaps between the cassettes were filled with insulation. The insulation designated Rockwool flexibatts 37 with the thickness of the wall with the nominal density of 32 kg/m³ were placed in the gap. The gap was closed off by the second layer (weatherboard), mounted on to a 25 x 50 mm wooden batten in the top of the gap. The wood had a nominal density of 450 kg/m³. See drawing No. 5.

The 45 x 45 mm wooden batten with a nominal density of 450 kg/m³ was fixed to the construction wood C24 with screws designated NKT Spun+ 4.5 x 70 mm. See drawing No. 5.

Insulation in the cassette: The in-blown insulation consisted of Isocell paper insulation with a nominal density of 54 kg/m^3.

Trickle Protection Membrane was used on both sides of the cassette, closing off the opening to the in-blown insulation. The membrane had a thickness on 0.5 mm and was mounted with staples.

Second layer: The second layer was 9.5 mm boards designated Knauf weatherboard 365, which had a nominal density of 768kg/m^3. See drawing No. 2.

A z-profile size 20 x 10 x 20 mm with the thickness of 0.55 mm was mounted to cover the joint of two weatherboards, one side of the z-profile was mounted between the construction wood and the board, the other side covered the upper edge of the below board.

Fixing of second layer: The boards were fixed with nails designated Tjep ZE 2.5 x 50 mm with a c/c distance of 300 mm.

Knauf W tape 60 mm x 22.8 mm was used to close off joints of the board after mounting.

Flame deflector: The flame deflectors were made with 2 mm steel profile. The profile was fixed on the façade with screws designated RedHorse CORONA™ RXB 4.8 X 60 EPDM-9.5B, the c/c distance between screws was 300 mm. Top and bottom profile fasten with RF rivet designated Gesipa 4.0 x 8.0 mm, the c/c distance between rivets was approx. 200 mm. Joint in fire deflectors between top and bottom profile is offset according to drawings. The longitudinal holes were minimum 20 mm long and the screws were placed in the middle of elongated hole during assembly so that expansion could take place. The flame deflectors protruded 305 mm out from the surface of the cladding andprotruded approx. 600 mm out from the edge of the main façade. The air gap inside the Flame deflectors was filled with insulation at the ends to prevent a horizontal air flow.

All details about the flame deflectors are shown on the following drawings: GKB-118818, GKB-118819, GKB-116645-1, GKB-116647-indv, GKB-116646-indv and drawing GKB-116647-indv.

Formwork: The impregnated wood formworks with a dimension of 25 x 50 mm with a nominal density of 450 kg/m³ were mounted vertically and then horizontally on the main façade.

The 22 x 100 mm wooden batten with a nominal density of 450 kg/m³ was mounted horizontally on the vertical formwork. The distance between the horizontal wooden batten and the flame deflector was 583 mm, as shown on drawing No. 5.

Fixing of formwork: The vertical formwork was nailed with 2.5 x 65 mm Tjep ZE, per 120 mm.
The horizontal formwork and wooden batten were nailed with 3.1 x 90 mm Tjep ZE, per 600 mm.

Cladding: Wooden planks designated Finnforest Thermowood profile 330 with a dimension of 21 x 118 mm and nominal density of 435 kg/m³ with groove and tongue were mounted horizontally on the top of the formworks as the cladding.

The cladding was cut horizontally 583 mm below the flame deflector.

Fixing of cladding: The cladding was fixed on the formwork horizontally with two nails per profile designated Tjep ZE 2.5 x 50 mm ring. See drawing No.3 & 4.

Window and fire chamber details: The powder-coated galvanized steel profiles were mounted around the window and fire chamber with Tjep ZE 2.5 x 50 mm Ring nails. The c/c distance of nails was 300 mm.

Insulation and sealant: Between the prefabricated cassette and the aerated concrete of the façade the mineral wool was used to close the gap.

The side of the main façade was covered by mineral wool insulation.

Between the prefabricated cassette and the aerated concrete around the fire chamber and the window, the ceramic wool was used to close the gap. On top of that a fire sealant was used to close of the airgap.

Measured by DBI

Product		Construction wood 195mm	OSB board	Isocell Blown insulation	Knauf Weatherboard 365	45 x 45 wooden beam
Density	kg/m³	392	613*	66*	778	523*
Thickness	mm	44.5	11.6		9.7	44.6
Moisture content	%	17.3	8.0	9.5	0.2	12.9
Organic content	%					
Sampling method		Extra material	Extra material	Extra material	Extra material	Extra material
Drying temperature	°C	105	105	55	55	105

Product		45x 95mm wooden beam	25 x 50 formwork	Frøslev klinkeprofil	22 x 100 wooden batten	Rockwool slab
Density	kg/m³	556*	506*	426	403	38
Thickness	mm	43.5	26.8		21.1	128.7
Moisture content	%	17.2	13.6	5.0	13.9	0.3
Organic content	%					2.1
Sampling method		Extra material	Extra material	Extra material	Extra material	Extra material
Drying temperature	°C	105	105	105	105	105

*The measured density of OSB board, Isocell Blown insulation, 45 x 45 mm wooden beam, 45x 95mm wooden beam, 25 x 50 formwork were more than 10% higher than the nominal density.

Test conditions

Conditioning

The materials for the test specimen were delivered on the 11-03-2024 to the DBI laboratory and stored under room temperature. On the day of the fire testing the condition of the test specimen was similar with respect to its moisture content as the test specimen would be in normal service.
The installation of the test specimen on the test rig was completed on the 15-03-2023.

Mounting

The test specimen was mounted on the test rig that had a size of 7990 mm in height and with main surface of 3620 mm and wing 1500 mm wide. The surface of the test rig was built with 150 mm aerated concrete blocks, with a nominal density of 575 kg/m³.

The design and location of the combustion chamber opening in the main face was in accordance with the design details specified in the standard ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE Draft revision 6, Draft Date: 2022 – 11 – 18.

Each of the two vertical sides was closed off with stone wool before the fire test.

Fire test

The fire test was conducted in the following conditions:

- Ambient temperature: approx. 11 °C at the start of the test (see Enclosures 3.0 and 3.1)
- Ambient air velocity: Not measured (test undertaken indoor where ambient air speed and/or wind did not affect the test)
- Mechanical exhaust: 80.000 m^3/h (at ambient temperature) even distributed in the ceiling of the test hall with a combined exhaust duct to the air filter cleaning system.

Observations were made during the test on the general behaviour of the test specimen.

Temperature observations were taken continually during the entire testing time.

The temperatures were measured on the external and internal layers of the test specimen as indicated on DBI drawing enclosure no. 1.0 - 1.1. All thermocouples that were used according to the standard ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE are named I.1.1-1.9, I.2.1-2.3, I.2.6, I.2.8, I.3.1-3.5. All other thermocouples are for informative uses.

The temperature was determined by means of type-K sheathed thermocouples specified in, ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE.

The thermocouples named I.1.1-1.9, I.2.1-2.3, I.2.6, I.2.8, I.3.1-3.5. were constructed of junctions of nickel chromium/nickel aluminium (type K) wire as defined in EN 60584-1 contained within mineral insulation in a heat resisting alloy sheath of nominal diameter 2.0 mm. Designated as a sheathed thermocouple.

The furnace plate thermocouples were constructed according to EN 1363-1, and all other thermocouples were made from type-k thermocouples wire with 0.5mm in diameter twisted together in the end.

The wood crib was constructed flowing the principles in ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE. The dimensions of the spruce sticks were approx. 45x45 mm and the external dimension of the 24-layer wood crib was 1.5m x 1m x 1.08m (width x depth x height). The wood crib was stored at approx. 20°C in dry conditions and was at the time of the fire test in equilibrium with the surroundings. The spruce sticks were nailed together to construct the crib and was installed on a closed bottom surface made of a 20 mm thick calcium silicate board with dimensions of 1300 mm x 1900 mm. The crib was placed 100 mm from the back wall and centred from the sidewalls of the combustion chamber. The average density of the wood was approx. 500 kg/m^3.

In front of the combustion chamber, a platform was placed which had a size of 1850 x 3200 mm. It was placed with the upper edge 100 mm below the floor of the combustion chamber. This was done to simulate a comparable air flow and buoyancy that will occur if the weight for fallings parts was used. which should have been placed in front of the facade according to ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE section 4.7.4.

The test was terminated after 49 minutes.

Test results

Duration of the test was 49 minutes.

Measurements

The enclosed graphs and tables show:

Enclosures 2.0 and 2.1	The temperature in the fire chamber during the test
Enclosures 3.0 and 3.1	Ambient temperature The ambient temperature in the laboratory during the test
Enclosures 4.0 and 4.1	Location 1 - Flux
Enclosures 5.0 and 5.1	Temperature measured in the ventilated cavity
Enclosures 6.0 and 6.1	Temperature measured in the ventilated cavity
Enclosures 8.0 and 8.1	Location 1,2 - Plate TC 1.4m and 2.5m height Plate TC.1 Location 1 Plate TC.2 Location 2
Enclosures 9.0 and 9.1	Location 2 - 5 m from facade 4.5 m height.
Enclosures 10.0 and 10.1	Location 1 - TC on PlateTC
Enclosures 11.0 and 11.1	Location 1 - TC on Flux Flux.TC.2 located 3 m from fire chamber
Enclosures 12.0 and 12.1	Location 2 - TC TC.1 Location 1 TC.2 Location 2
Enclosures 13.0 and 13.1	Temperature rise measured 50mm from the facade
Enclosures 14.0 and 14.1	Temperature rise measured in ventilation layer
Enclosures 15.0 and 15.1	Temperature rise measured in middle of insulation
Enclosures 16.0 and 16.1	Temperature rise measured according to the standard - 50 mm from facade. Minimum of 30 sec
Enclosures 17.0 and 17.1	Temperature rise measured according to the standard - ventilation layer. Minimum of 30 sec

Enclosures 18.0 and 18.1	Temperature rise measured according to the standard - in the middle of the insulation. Minimum of 30 sec
Enclosures 22.0 and 22.1	Vertical measurements on main facade
Enclosures 23.0 and 23.1	Vertical measurements on main facade
Enclosures 24.0 and 24.1	Vertical measurements on the wing
Enclosures 25.0 and 25.1	Vertical measurements on the wing
Enclosures 26.0 and 26.1	Horizontal measurements
Enclosures 27.0 and 27.1	Horizontal measurements
Enclosures 28.0 and 28.1	Plate thermocouple on facade
Enclosures 29.0 and 29.1	Heat flux on window
Enclosures 30.0 and 30.1	TC on window heat Flux Flux.TC. on window

Visual observations:

Time / Minutes	Visual observations:
0.0	Test start.
0.55	Flames had reached the upper right window.
2.93	Cladding was burning past the first flame deflector.
3.25	Flames reached the second flame deflector.
4.02	The façade created a lot of sparks in the air.
4.11	First flame deflector began to burn and bend down.
4.20	The cladding on the right side of the window began to burn.
6.08	The fire had reached above/past the second flame deflector.
6.45	The corner of the flame deflector was burning.
6.45	The fire of the façade was mainly concentrated on the right.
10.45	The second flame deflector was burning and bending.

13.00 The frame of the window was burning all around.

15.00 Paint from the flame deflector began to fly off in the air with the sparks.

17.10 Cladding began to drop with burning pieces.

19.32 Bigger amounts of cladding had fallen.

22.28 The fallen cladding began to create big amounts of sparks.

29.00 The plate thermocouple had fallen.

38.00 Most of the cladding on the wall had fallen at this point. Second floor was still intact.

44.00 Smoke appeared from the top of the specimen.

45.41 Small amount of charring appeared on the bottom of the top floor, right above the flame deflector.

49.00 Test stopped due to visible burning on the bottom of the second floor at the cladding.

The photographs on the attached photo sheets show the test specimen during the mounting, testing and after the test. See the description at each photo.

Conclusion

Fire testing according to daft version of: ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE, the construction described in this test report showed that failure according to the performance criteria stated in the test method occurred at the following time:

Performance	Criteria	Test result
Fire spread		
	Vertical fire spread	No failure
	Horizontal fire spread	19 minutes
	Burning parts	16 minutes
Falling parts – Level 0		
	Falling parts – (Level 0)	15 minutes
Falling parts – Level 1		
	Falling parts – (Level 1)	Not measured
Falling parts – Level 2		
	Falling parts – (Level 2)	Not measured

The test was terminated after 49 minutes.

Remarks

The test was an Ad-Hoc test, there is no field of application.

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 ASSESSMENT OF FIRE PERFORMANCE OF FACADES USING LARGE FIRE EXPOSURE.

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.

This report has only been printed in a pdf-version. DBI has not issued a hard copy version.
All values mentioned in this report are nominal values, production tolerances are not considered.

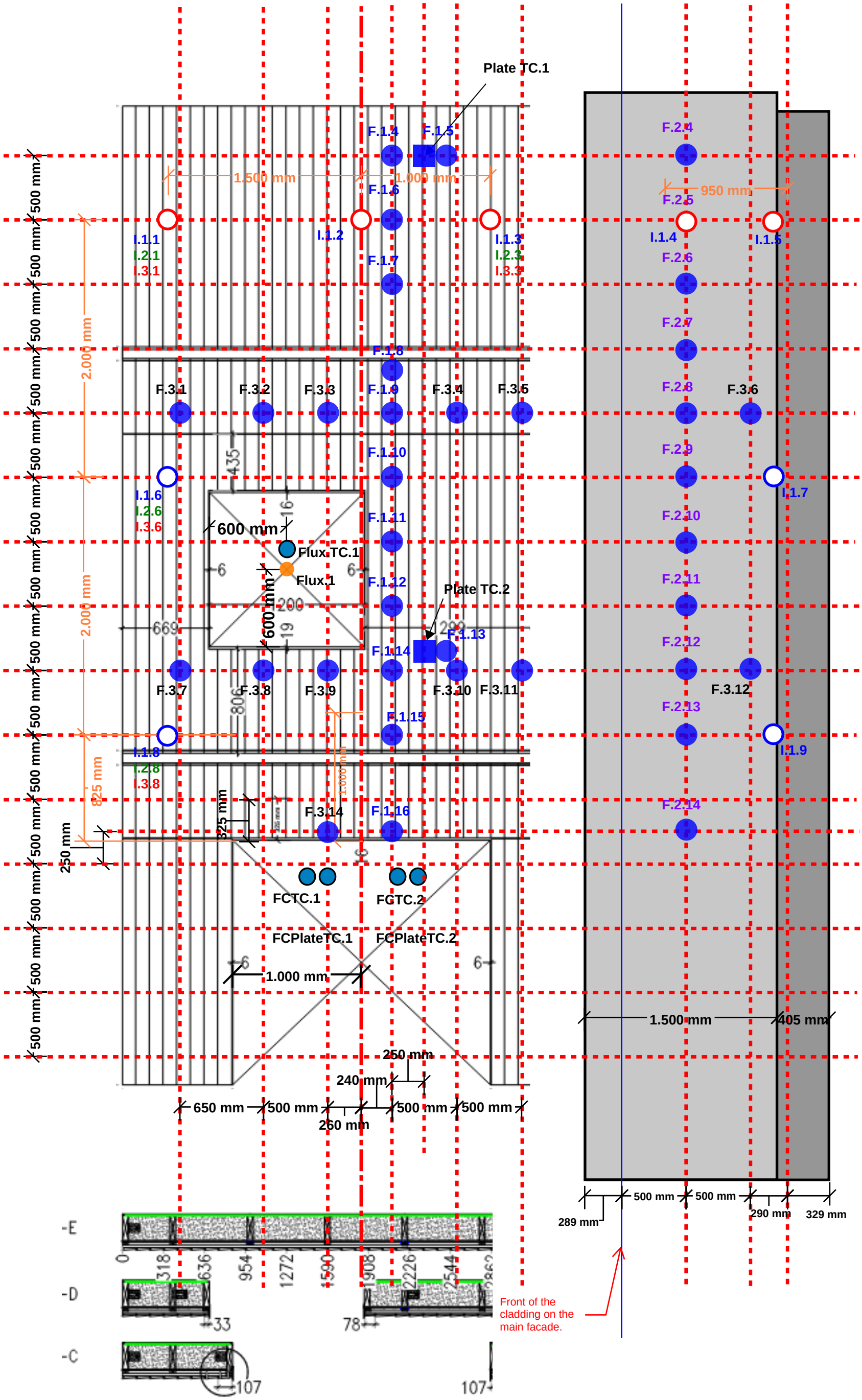
The test was not performed accredited.

Danish Institute of Fire and Security Technology

Mads Møllgren
Resistance to Fire Engineer

Chunyang Dong
Resistance to Fire Engineer

Fælledby P/S	**Enclosures:**	**106**
c/o Cobblestone A/S	DBI drawings:	15
Gammel Køge Landevej 57, 3.	DBI graphs and tables:	50
2500, Valby	Photo sheets:	15
Denmark	Sponsors drawings:	26



Thermocouple location on the facade surface proposed by Guoxiang (5 cm from the wood panel surface).

Thermocouple location on the facade surface required according to the standard (3 measurements: 5 cm out on exposed surface, middle of cavity and center of insulator).

I.1.6 -> I.1.9 50mm ud igennem facade (Hele vejen igennem)
I.2.6 + I.2.8 I midten af ventilationslag
I.3.6 + I.3.8 I midten af isolering

Thermocouple location on the facade surface required according to the standard (2 measurements: 5 cm out on exposed surface and middle of the cavity)

I.1.1 -> I.1.5 50mm ud igennem facade (Hele vejen igennem)
I.2.1 + I.2.3 I midten af ventilationslag
I.3.1 + I.3.3 I midten af isolering

Thermocouple within the ventilated cavity.

Water cooled heat flux censor at the center of the secondary window.

Plate thermometer at the surface of the facade, flush to the surface of the facade.

File no.: PGC10035A
Test date: 21-03-2024
Enclosure: 1.1
Danish Institute of Fire and security Technology
Sponsor: Fælledby P/S
Subject: EU Facade test 6

BFUH-6 Facadetest ved DBI — Foreløbig

Facadebeklædning

BYGHERRE: Fælledby
–
–

DATO: 2024-02-27 REV. NR/DATO: 2024-03-04
ANSV: CMA MÅL: 1:30 ANTAL: –
TEGN.NR: 5

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

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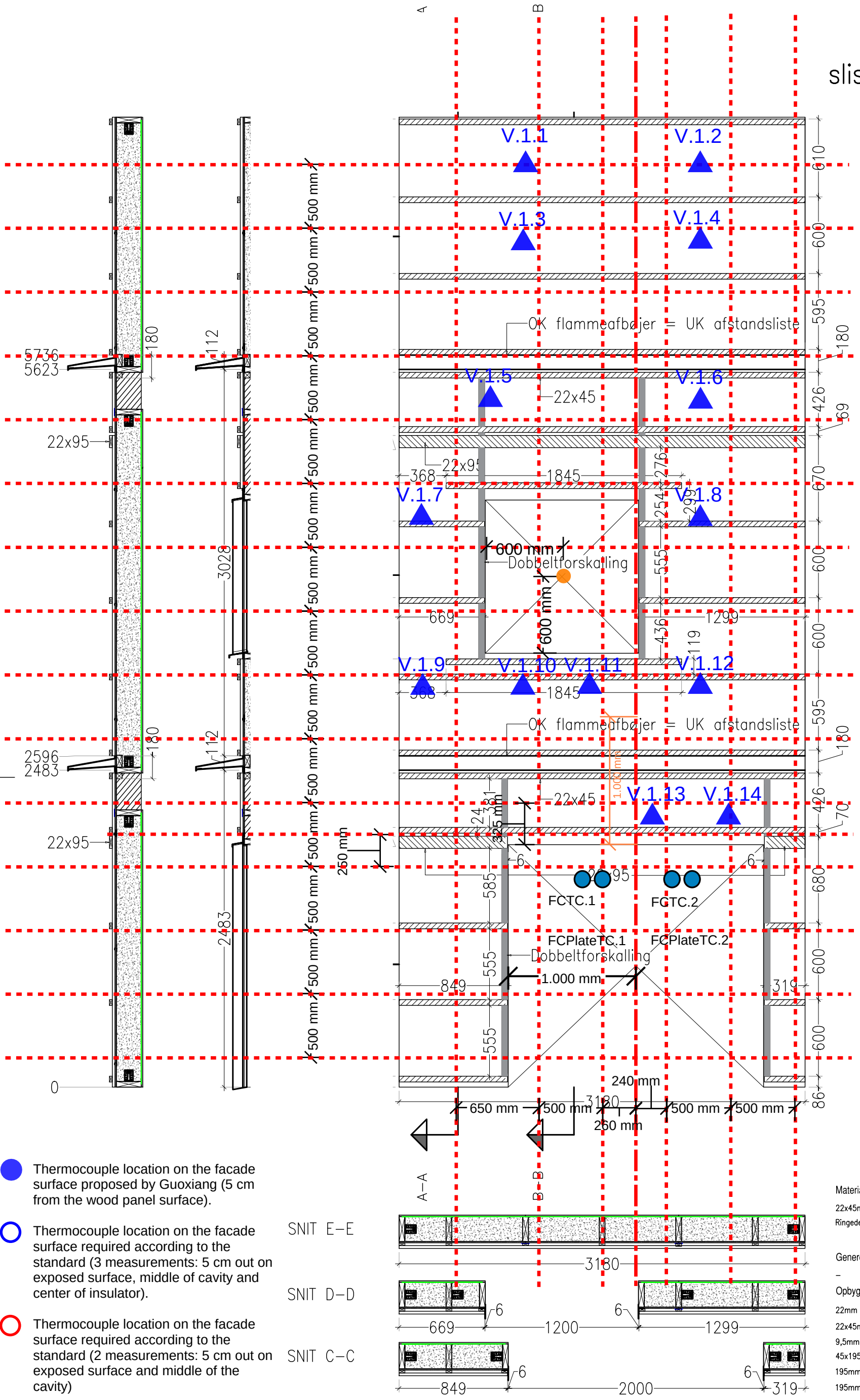

- Thermocouple location on the facade surface proposed by Guoxiang (5 cm from the wood panel surface).
- Thermocouple location on the facade surface required according to the standard (3 measurements: 5 cm out on exposed surface, middle of cavity and center of insulator).
- Thermocouple location on the facade surface required according to the standard (2 measurements: 5 cm out on exposed surface and middle of the cavity)
- Thermocouple within the ventilated cavity.
- Water cooled heat flux censor at the center of the secondary window.
- Plate thermometer at the surface of the facade, flush to the surface of the facade.

File no.: PGC10035A
Test date: 21-03-2024
Enclosure: 1.2
Danish Institute of Fire and security Technology
Sponsor: Fælledby P/S
Subject: EU Facade test 6

Materialer:

22x45mm + 22x95 afstandslister i gran ubehandlet LBM:
Ringede galvaniserede pistolsøm 3,1 x 90

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)
22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)
9,5mm Knauf Weatherboard 365
45x195mm stoplekonstruktion pr. 600mm
195mm Isocell (isolering kl 37)
195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Bredforskalling samt befæstigelse tilføjet

BFUH-6 Facadetest ved DBI — Foreløbig

V Afstandslister

BYGHERRE: Fælledby
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DATO: 2024-02-27 REV. NR/DATO: 2024-03-04
ANSV: CMA MÅL: 1:30 ANTAL: –
TEGN.NR: 4

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

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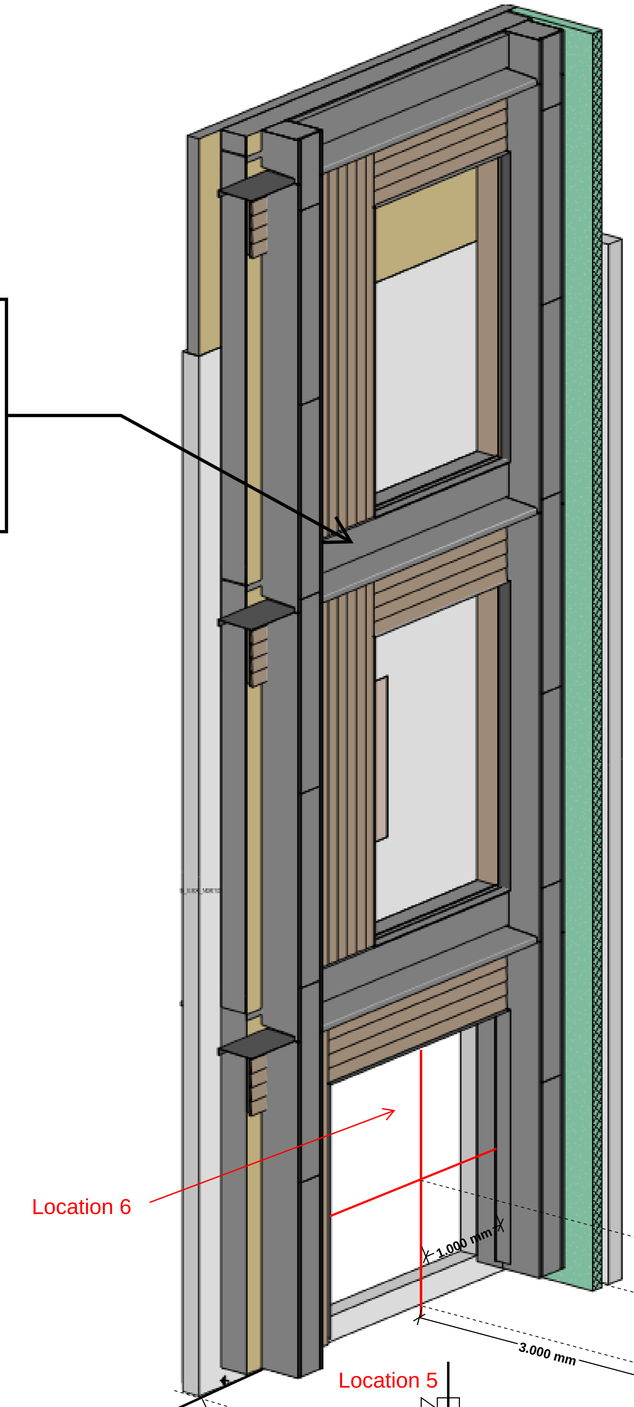
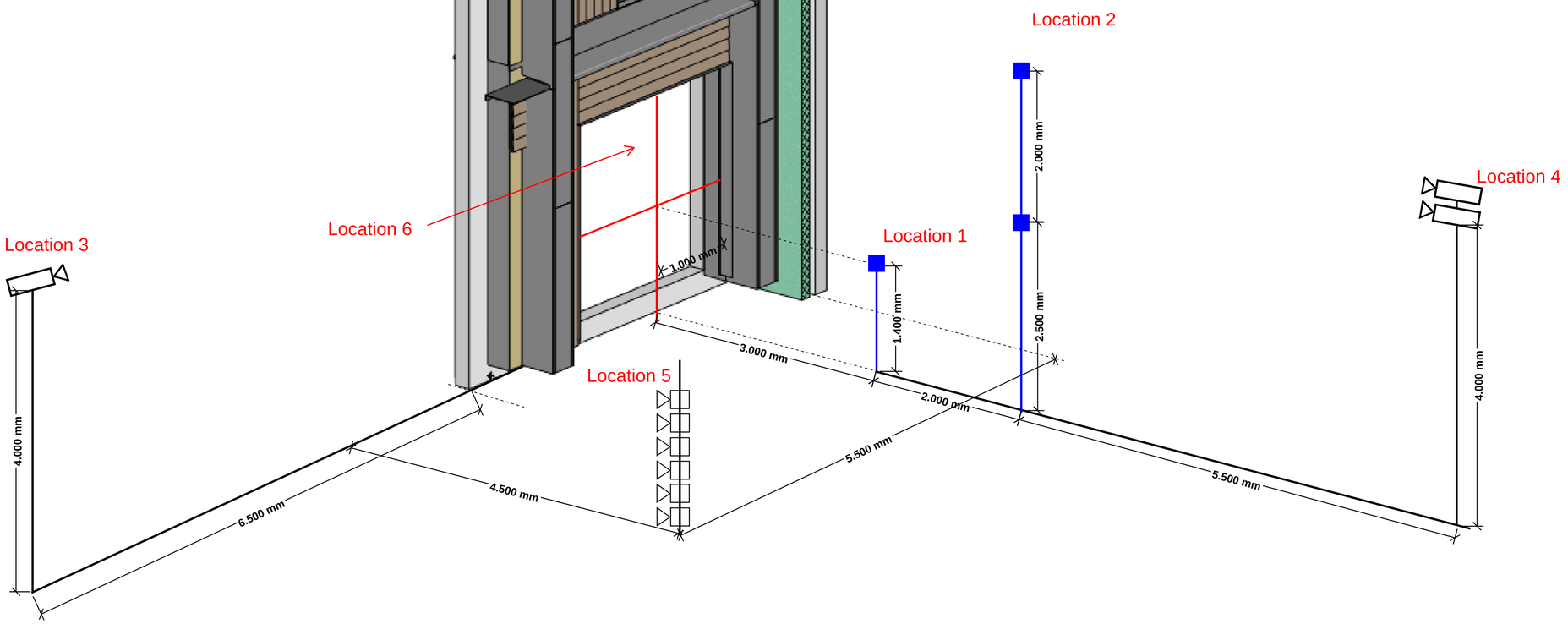
BFUH-6
CAMERA LOCATION

The isometry is copied from BFUH-5, as no isometry was made for this test.

But this shouldn't matter since camera locations are set in relation to the fire chamber and the rig.





NOTE:

- Location 1: 3 m away to the center of the combustion chamber (both horizontally and vertically), a plate thermometer, a thermocouple and a water cooled heat flux censor.
- Location 2: 5 m away from the facade wall, 2.5 m above the ground and 4.5 m above the ground, a plate thermometer and a thermocouple.

Location 3 : 1 camera from the side view, 4 meters hight, mounted on the SP-FIRE rig, observerving the test from the side.

Location 4: 1 camera from front view, 4 meters hight, mounted on the gas-beton rig, at the opposite end of the facadehall in the corner.

Location 5: 6 blue LED lights, light should focus on the second section of the facade.

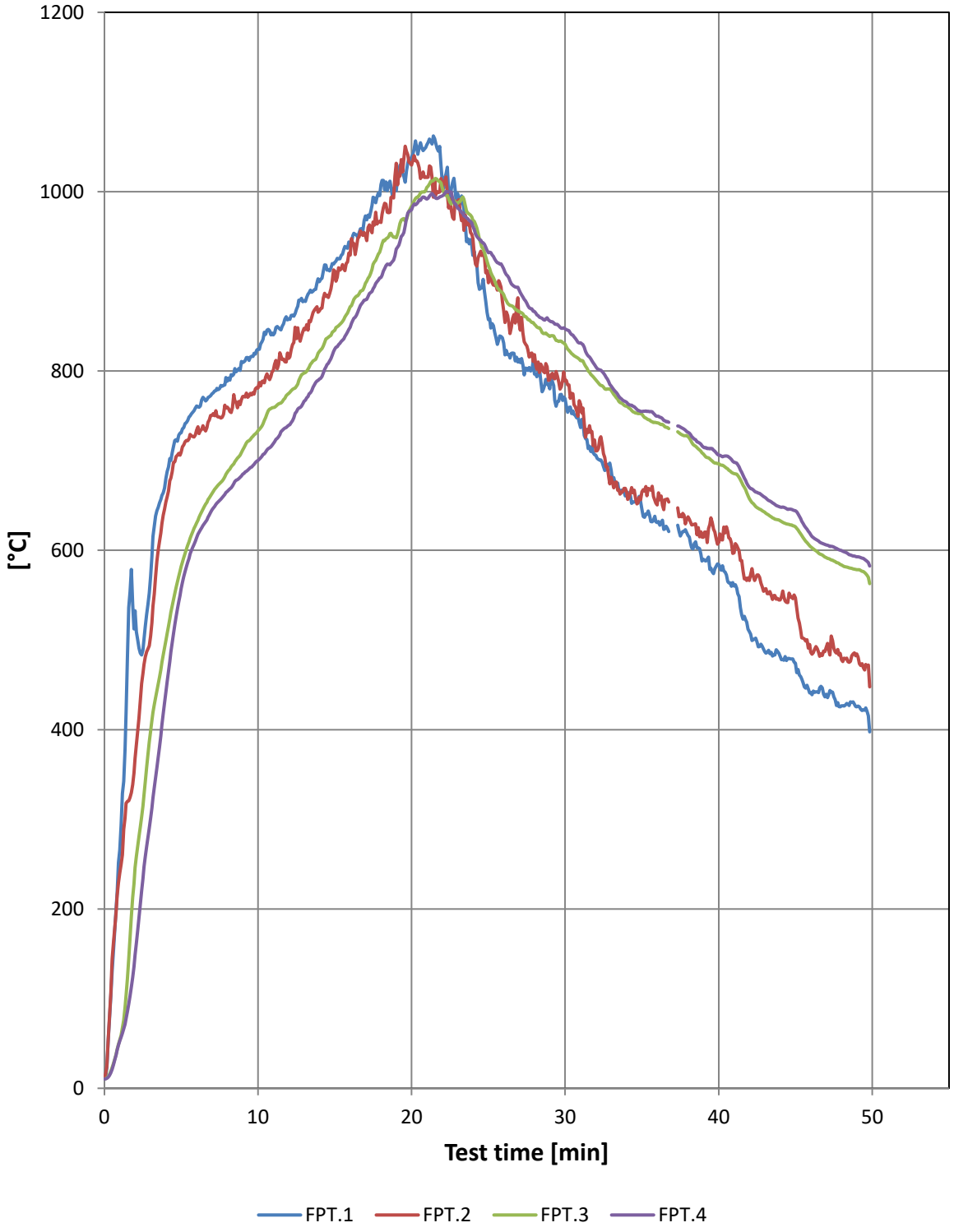
Location 6: two plate thermometers + two wire thermocouples inside the combustion chamber.

Location 7 and 8: bi-direction velocity tube together with a wire temperature thermocouple to measure the measuring the flow speed towards the wood crib

Note: height indicator every 500 mm at two edges of the facade.

File no.: PGC10035A
Test date: 21-03-2024
Enclosure: 1.3
Danish Institute of Fire and security Technology
Sponsor: Fælledby P/S
Subject: EU Facade test 6

The temperature in the fire chamber during the test



FireChamberPlateTC.1 FireChamberPlateTC.2
FireChamberTC.1 FirechamberTC.2

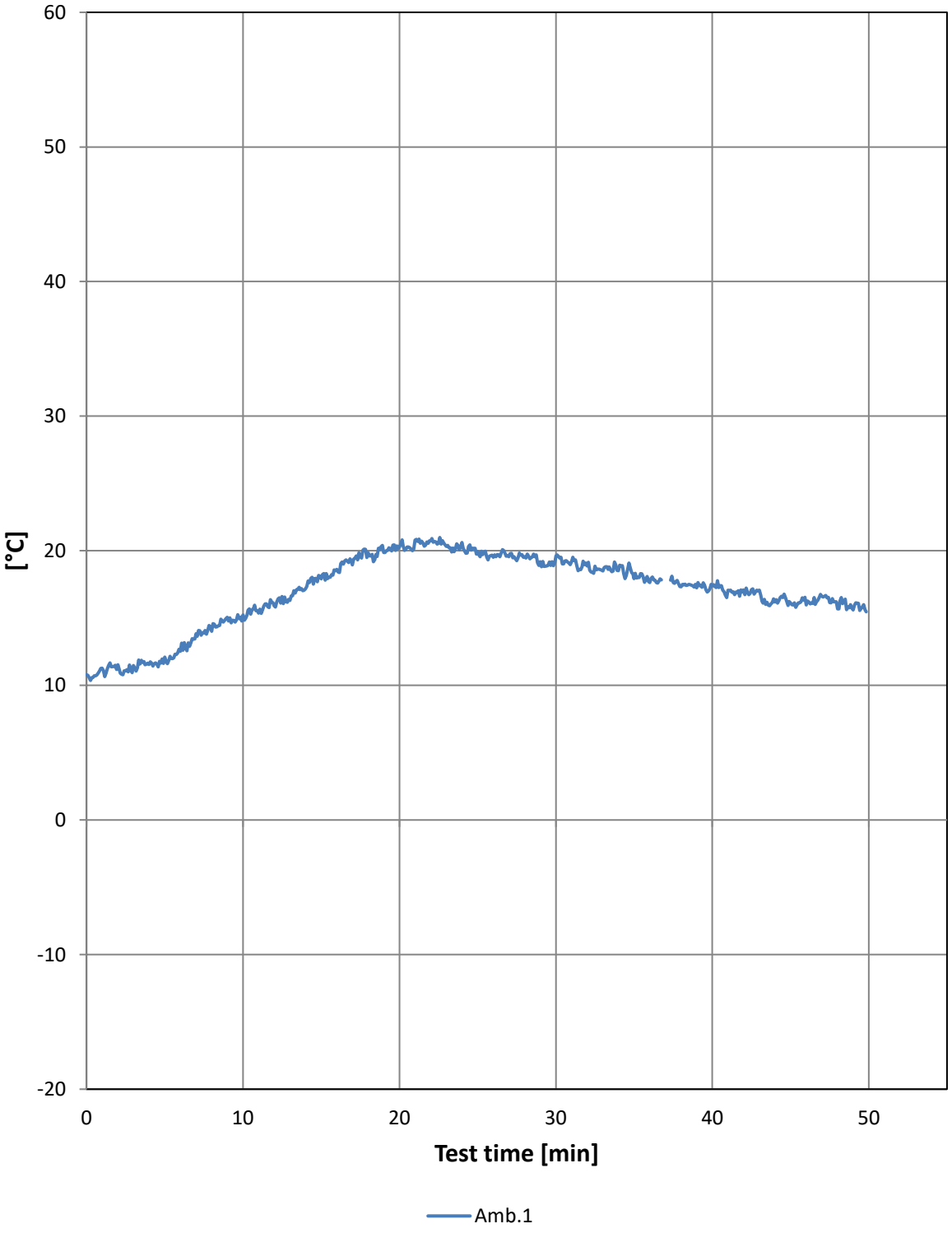
The temperature in the fire chamber during the test

Min. / °C	FPT.1	FPT.2	FPT.3	FPT.4
0	10	11	11	10
2	533	368	246	149
4	680	654	499	442
6	761	734	631	614
8	789	760	687	666
10	824	781	734	700
12	858	814	775	740
14	900	867	822	791
15	921	911	846	825
16	944	929	872	849
18	1008	966	937	904
20	1039	1030	984	980
22	1010	1005	1004	995
24	929	948	968	961
26	831	867	885	914
28	796	818	852	866
30	769	789	830	847
32	706	711	790	805
34	663	665	761	765
36	631	650	742	750
38	617	638	727	732
40	584	609	697	706
42	509	566	658	670
44	482	545	633	648
46	441	486	604	617
48	427	478	584	600
49	425	484	578	593

FireChamberPlateTC.1 FireChamberPlateTC.2
FireChamberTC.1 FirechamberTC.2

Ambient temperature

The ambient temperature in the laboratory during the test



A 30 seconds disconnection of logger box at 36th min

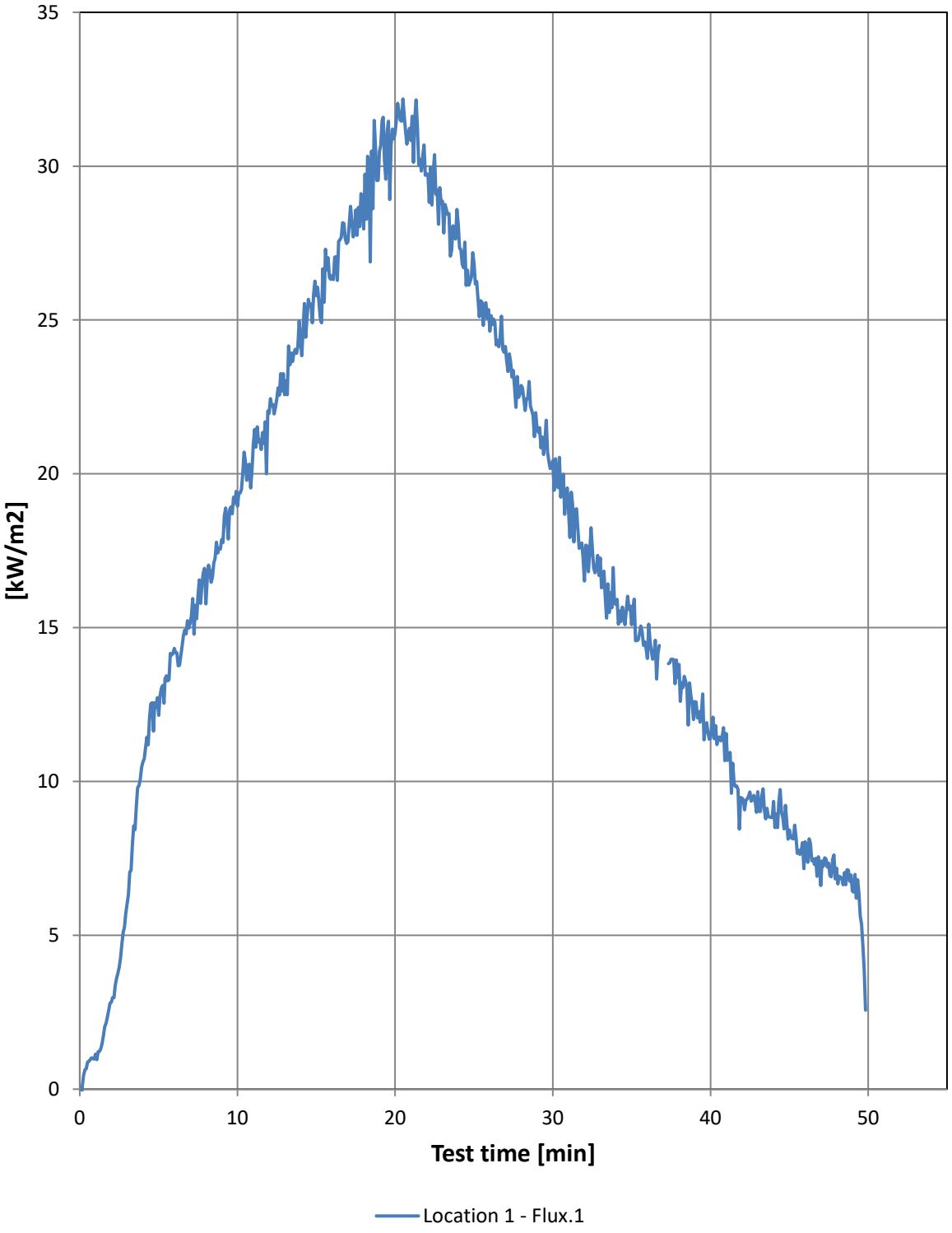
Ambient temperature

The ambient temperature in the laboratory during the test

Min. / °C	Amb.1
0	11
2	12
4	12
6	13
8	14
10	15
12	16
14	17
15	18
16	19
18	20
20	20
22	21
24	21
26	20
28	20
30	20
32	19
34	19
36	18
38	17
40	17
42	17
44	16
46	16
48	16
49	16

A 30 seconds disconnection of logger box at 36th min

Location 1 - Flux



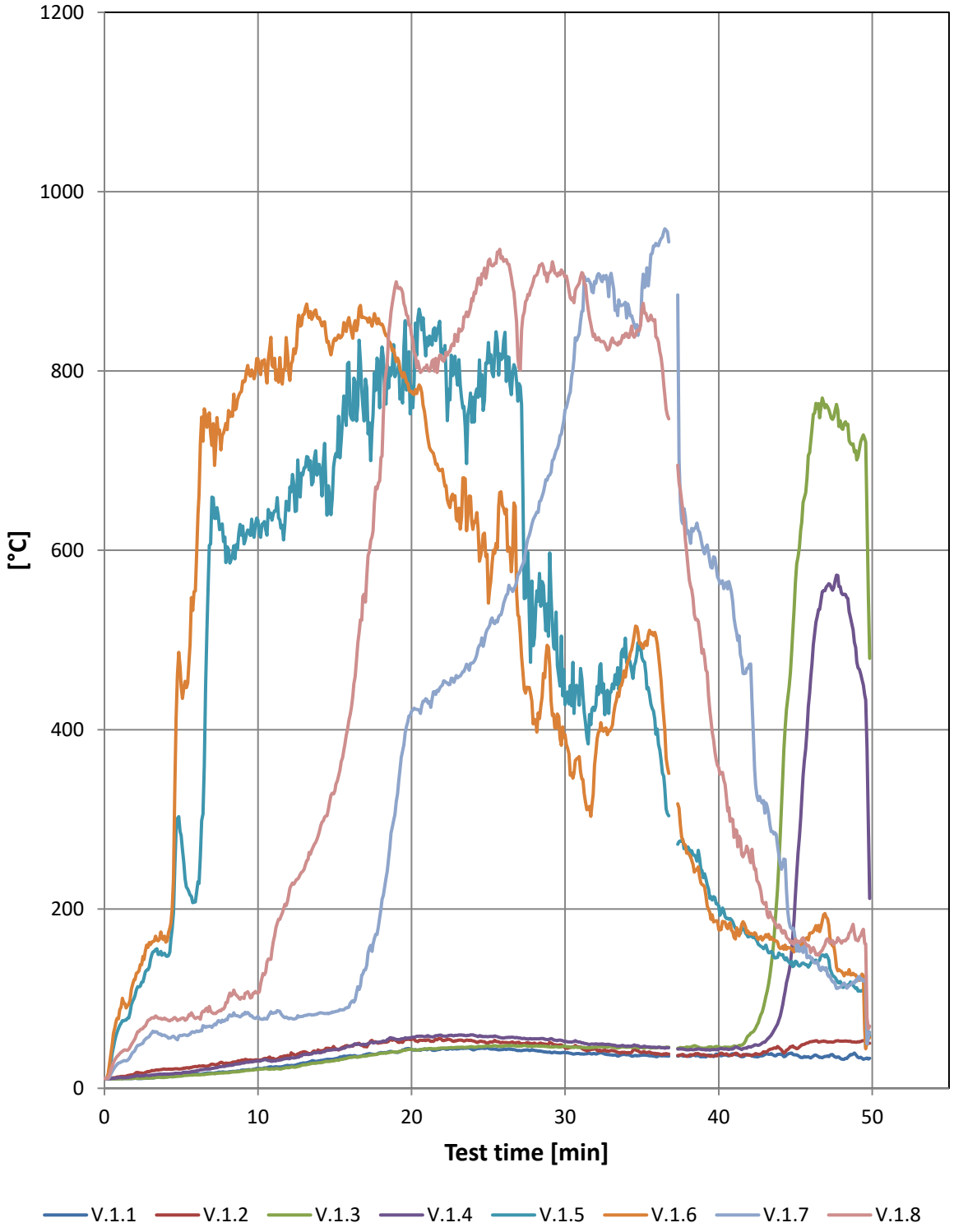
A 30 seconds disconnection of logger box at 36th min

Location 1 - Flux

Min. / kW/m2	Location 1 - Flux.1
0	0
2	3
4	11
6	14
8	16
10	19
12	22
14	24
15	26
16	26
18	28
20	31
22	30
24	28
26	25
28	23
30	20
32	17
34	16
36	14
38	14
40	11
42	9
44	9
46	8
48	7
49	6

A 30 seconds disconnection of logger box at 36th min

Temperature measured in the ventilated cavity



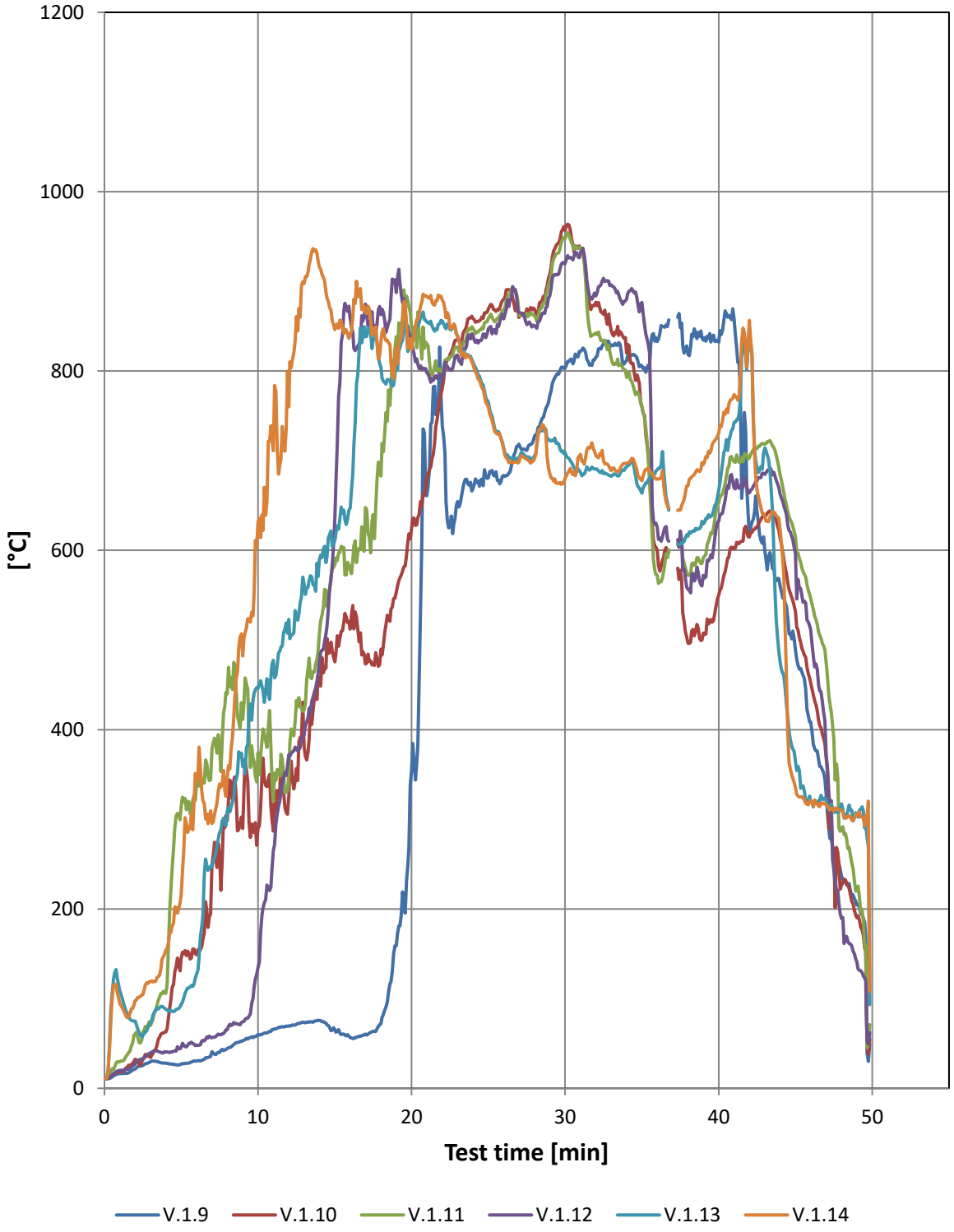
A 30 seconds disconnection of logger box at 36th min

Temperature measured in the ventilated cavity

Min. / °C	V.1.1	V.1.2	V.1.3	V.1.4	V.1.5	V.1.6	V.1.7	V.1.8
0	11	11	11	11	11	11	11	11
2	11	17	11	14	104	121	43	56
4	13	21	12	16	148	163	58	77
6	16	24	15	20	219	597	64	79
8	18	28	17	25	604	735	77	95
10	22	32	21	31	633	814	80	106
12	25	36	23	33	644	798	77	216
14	31	41	28	40	696	860	84	286
15	33	44	31	43	704	836	85	332
16	37	47	35	47	752	851	95	417
18	40	51	39	52	812	852	200	704
20	43	54	43	57	783	777	421	840
22	44	53	45	58	824	690	450	812
24	43	53	46	60	771	623	475	878
26	44	51	47	56	834	647	541	922
28	42	51	47	55	503	412	637	906
30	40	45	47	52	428	395	757	905
32	38	44	46	50	427	374	898	835
34	37	39	46	47	475	469	859	842
36	35	39	45	45	401	497	940	837
38	36	36	46	43	269	263	622	582
40	38	37	46	44	203	177	567	358
42	38	37	59	46	169	172	473	258
44	38	44	280	80	150	156	251	180
46	34	52	721	457	140	173	145	152
48	33	53	736	552	117	130	114	162
49	36	52	701	476	112	124	119	165

A 30 seconds disconnection of logger box at 36th min

Temperature measured in the ventilated cavity



A 30 seconds disconnection of logger box at 36th min

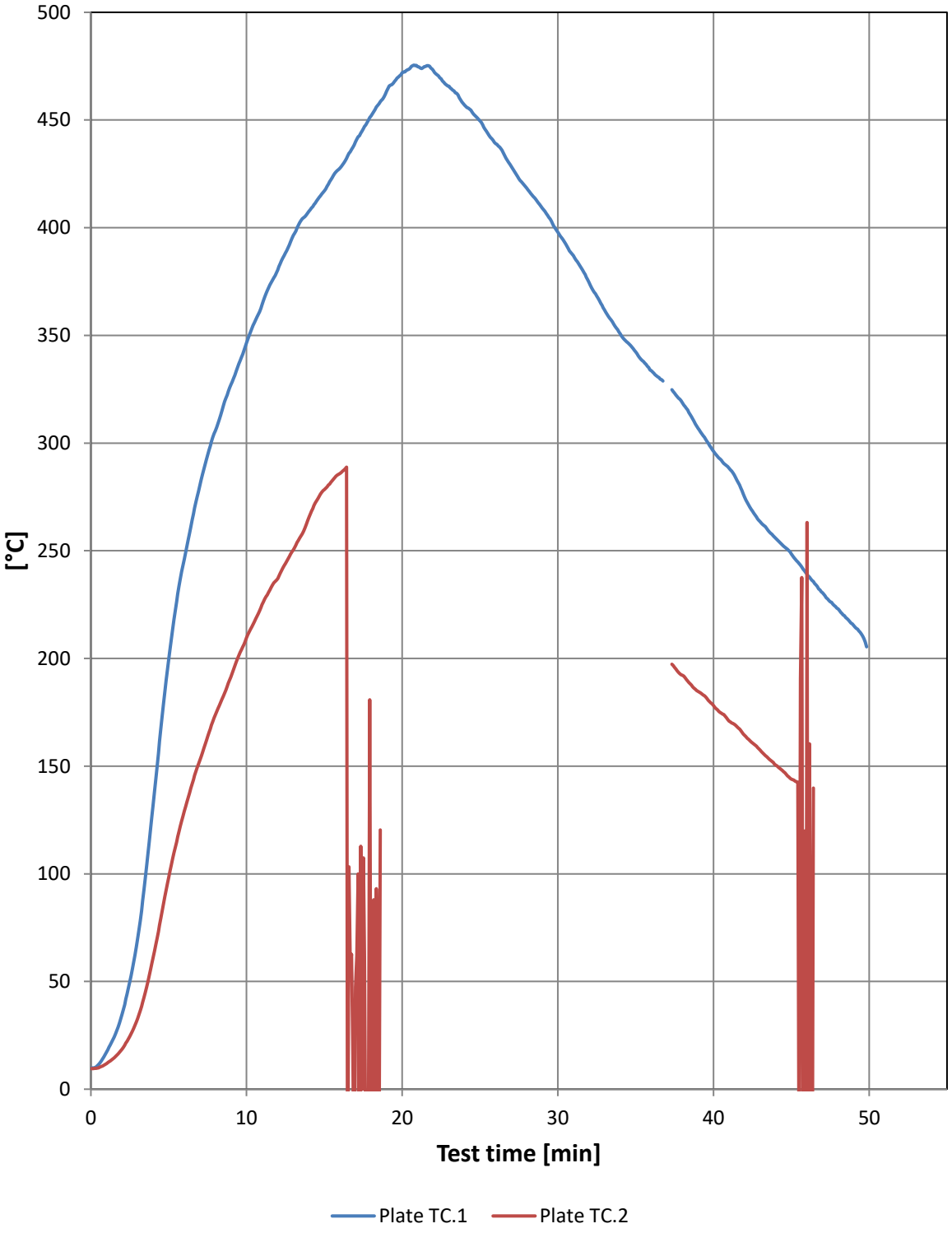
Temperature measured in the ventilated cavity

Min. / °C	V.1.9	V.1.10	V.1.11	V.1.12	V.1.13	V.1.14
0	11	11	10	11	11	11
2	21	32	60	27	75	98
4	28	63	106	41	88	154
6	31	149	342	48	127	342
8	44	299	440	65	309	347
10	60	290	374	135	446	632
12	69	326	350	372	523	760
14	76	450	506	475	589	916
15	65	476	584	637	611	846
16	57	512	579	858	647	842
18	72	490	683	863	804	833
20	353	623	849	832	827	824
22	738	781	797	791	856	879
24	669	859	848	840	810	807
26	683	880	868	858	714	713
28	727	869	862	850	706	702
30	803	957	947	919	709	680
32	815	877	842	884	691	706
34	812	820	793	880	693	697
36	833	601	572	626	690	680
38	819	497	572	557	616	672
40	832	550	653	633	667	731
42	618	615	703	664	847	856
44	560	613	684	663	475	623
46	409	452	546	511	320	320
48	237	227	291	189	317	309
49	204	190	220	141	305	304

A 30 seconds disconnection of logger box at 36th min

Location 1,2 - Plate TC 1.4m and 2.5m height

Plate TC.1 Location 1
Plate TC.2 Location 2



A 30 seconds disconnection of logger box at 36th min

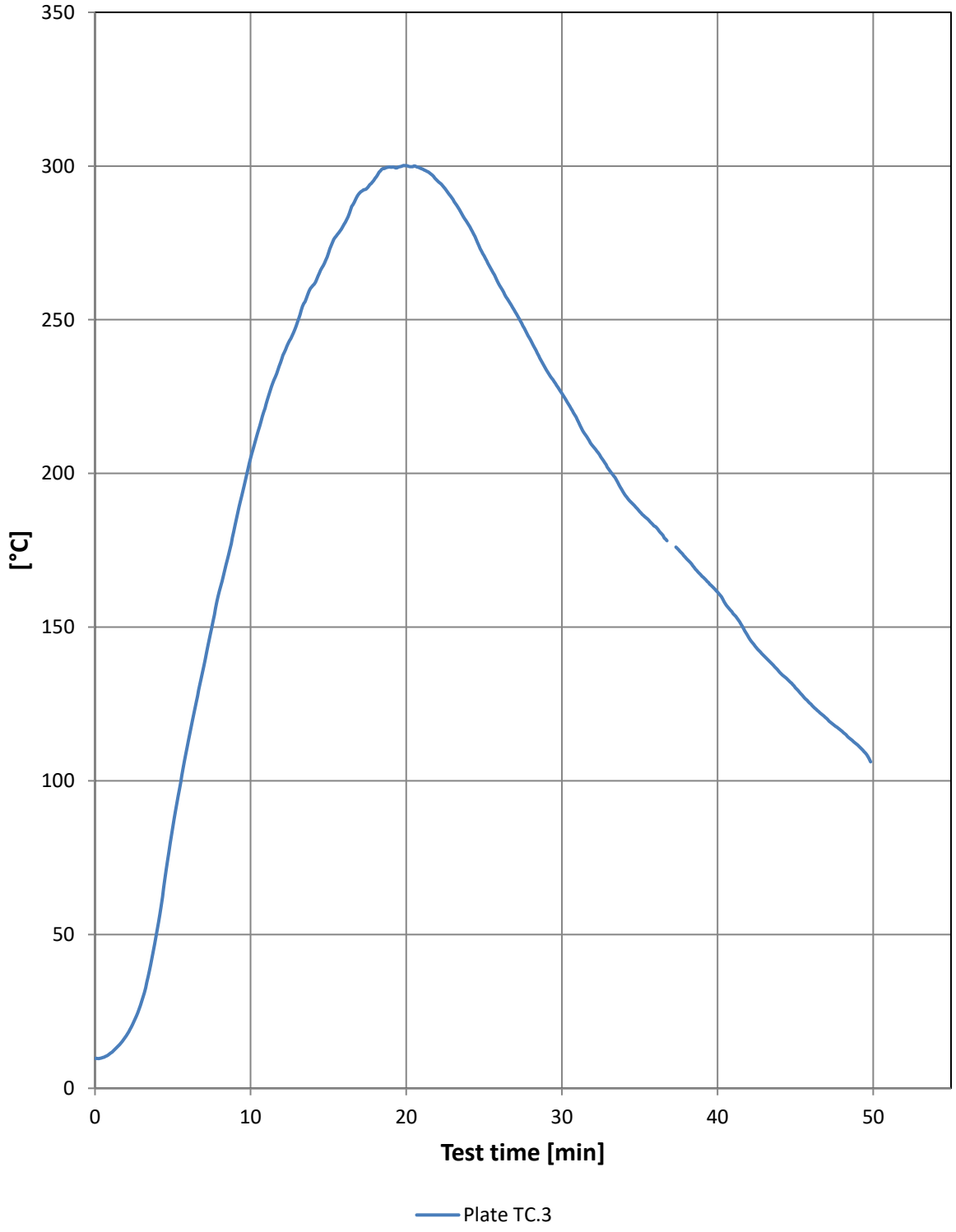
Location 1,2 - Plate TC 1.4m and 2.5m height

Plate TC.1 Location 1
Plate TC.2 Location 2

Min. / °C	Plate TC.1	Plate TC.2
0	10	10
2	35	19
4	132	61
6	246	129
8	306	174
10	346	210
12	380	237
14	408	265
15	417	278
16	428	286
18	452	-28
20	472	0
22	473	0
24	457	0
26	439	0
28	418	0
30	398	0
32	375	0
34	351	0
36	334	0
38	319	192
40	296	178
42	275	164
44	256	150
46	239	263
48	223	0
49	215	0

A 30 seconds disconnection of logger box at 36th min

Location 2 - 5 m from facade 4.5 m height.



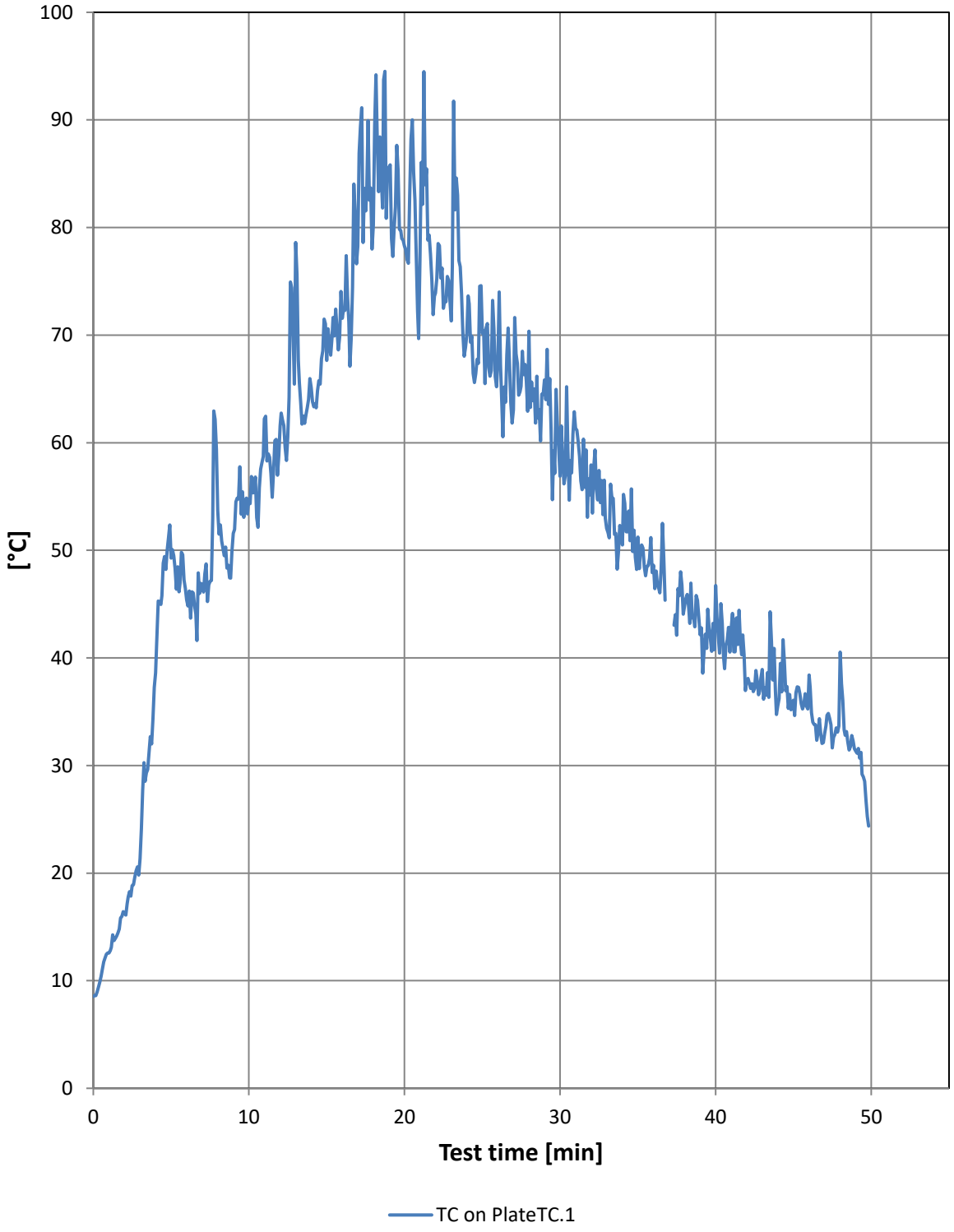
A 30 seconds disconnection of logger box at 36th min

Location 2 - 5 m from facade 4.5 m height.

Min. / °C	Plate TC.3
0	10
2	17
4	52
6	113
8	162
10	205
12	237
14	261
15	272
16	281
18	296
20	300
22	295
24	281
26	261
28	243
30	226
32	209
34	193
36	183
38	172
40	161
42	147
44	135
46	125
48	116
49	112

A 30 seconds disconnection of logger box at 36th min

Location 1 - TC on PlateTC



A 30 seconds disconnection of logger box at 36th min

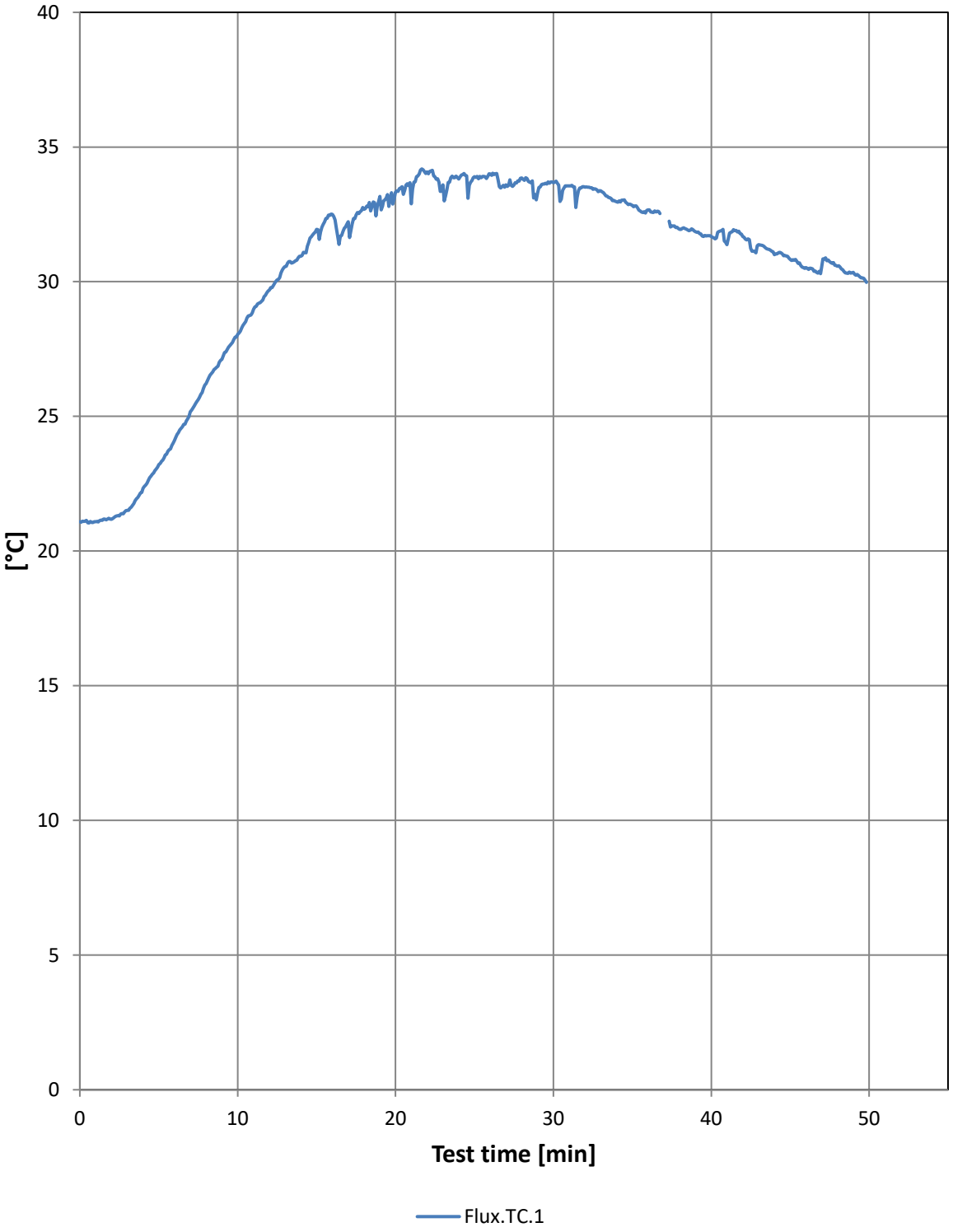
Location 1 - TC on PlateTC

Min. / °C	TC on PlateTC.1
0	9
2	16
4	39
6	45
8	54
10	55
12	62
14	65
15	68
16	72
18	80
20	78
22	74
24	70
26	68
28	70
30	57
32	58
34	50
36	49
38	45
40	47
42	38
44	36
46	38
48	41
49	31

A 30 seconds disconnection of logger box at 36th min

Location 1 - TC on Flux

Flux.TC.2 located 3 m from fire chamber



A 30 seconds disconnection of logger box at 36th min

Location 1 - TC on Flux

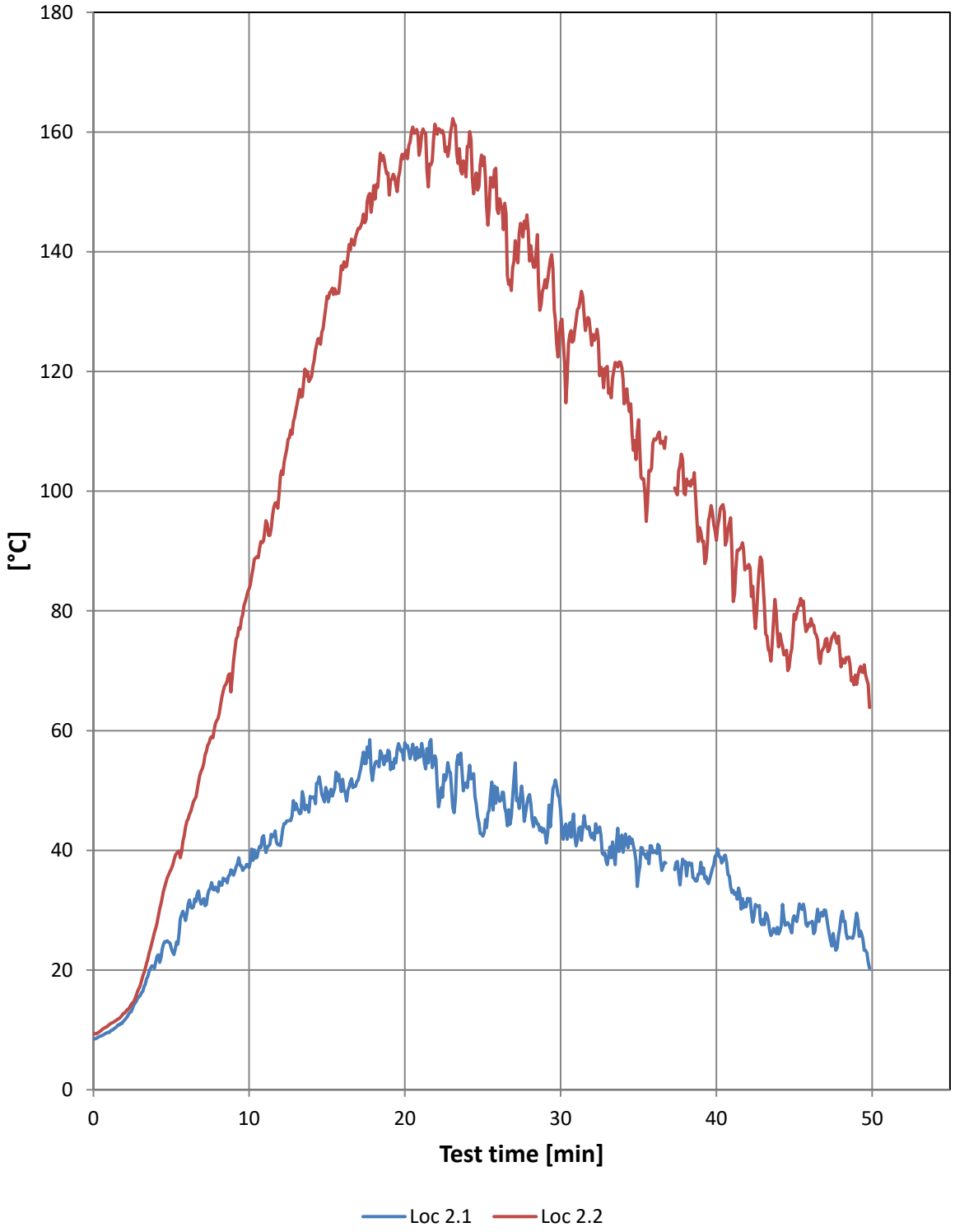
Flux.TC.2 located 3 m from fire chamber

Min. / °C	Flux.TC.1
0	21
2	21
4	22
6	24
8	26
10	28
12	30
14	31
15	32
16	33
18	33
20	33
22	34
24	34
26	34
28	34
30	34
32	34
34	33
36	33
38	32
40	32
42	32
44	31
46	31
48	31
49	30

A 30 seconds disconnection of logger box at 36th min

Location 2 - TC

TC.1 Location 1
TC.2 Location 2



A 30 seconds disconnection of logger box at 36th min

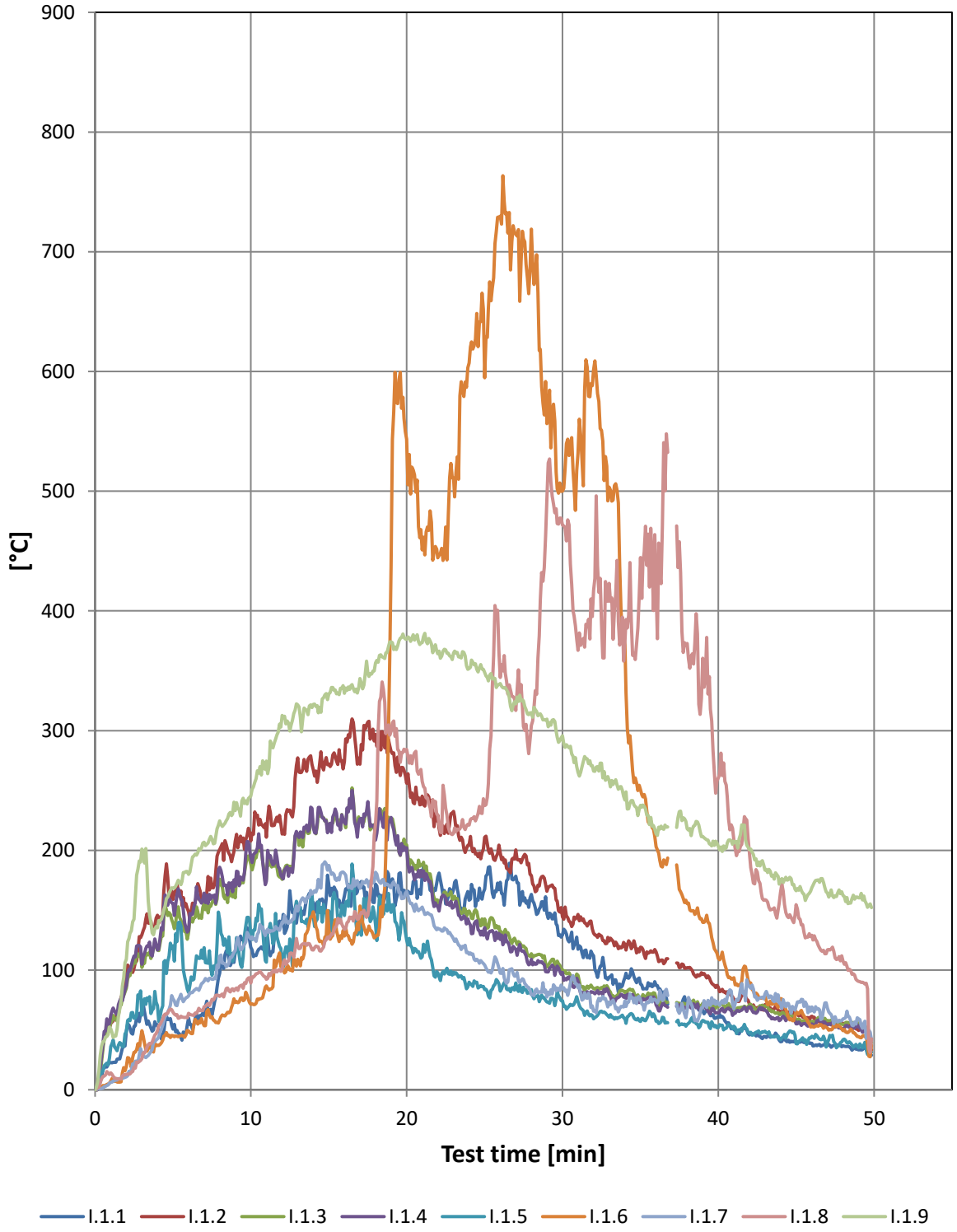
Location 2 - TC

TC.1 Location 1
TC.2 Location 2

Min. / °C	Loc 2.1	Loc 2.2
0	8	9
2	12	13
4	21	27
6	29	45
8	33	62
10	37	84
12	41	103
14	49	119
15	50	133
16	52	137
18	53	151
20	58	156
22	55	161
24	50	158
26	49	146
28	49	138
30	47	128
32	42	124
34	40	119
36	40	109
38	38	99
40	39	92
42	32	87
44	26	74
46	28	77
48	29	71
49	30	68

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured 50mm from the facade



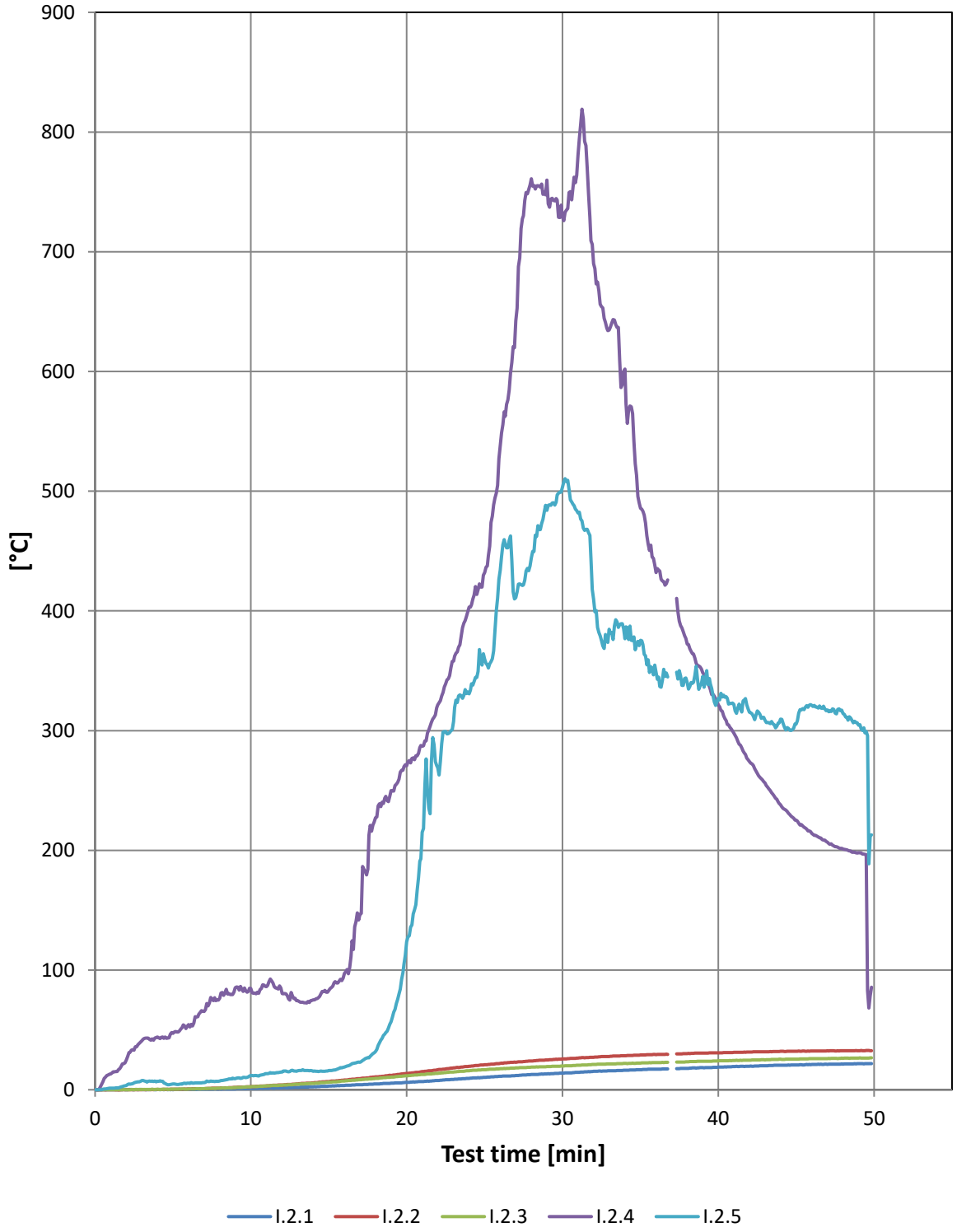
A 30 seconds disconnection of logger box at 36th min

Temperature rise measured 50mm from the facade

Min. / °C	I.1.1	I.1.2	I.1.3	I.1.4	I.1.5	I.1.6	I.1.7	I.1.8	I.1.9
0	0	0	0	0	0	0	0	0	0
2	49	100	85	87	48	19	11	13	109
4	54	146	117	117	70	37	43	49	135
6	60	149	131	133	81	49	78	64	180
8	97	201	176	186	142	58	112	78	225
10	119	208	189	194	128	71	126	89	245
12	139	214	176	177	107	103	140	101	313
14	156	267	221	219	145	149	164	117	322
15	171	272	221	222	149	134	187	126	331
16	162	274	223	223	145	128	181	134	331
18	172	297	213	209	138	128	182	222	356
20	162	256	205	202	125	543	166	284	376
22	178	229	158	153	98	444	135	230	364
24	158	205	149	139	90	607	113	221	352
26	173	198	131	126	82	730	97	344	339
28	163	179	114	109	84	719	79	304	315
30	129	145	101	98	74	500	84	472	296
32	112	131	85	81	59	601	66	417	266
34	94	121	82	79	60	372	74	375	242
36	87	115	76	71	57	203	74	420	214
38	73	102	71	68	55	155	67	373	218
40	60	86	70	64	52	110	72	261	203
42	46	72	71	69	47	89	86	198	201
44	40	65	63	58	42	76	72	165	175
46	39	61	57	55	45	53	69	129	169
48	37	56	54	51	42	49	59	108	162
49	33	50	55	52	35	45	59	90	160

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured in ventilation layer



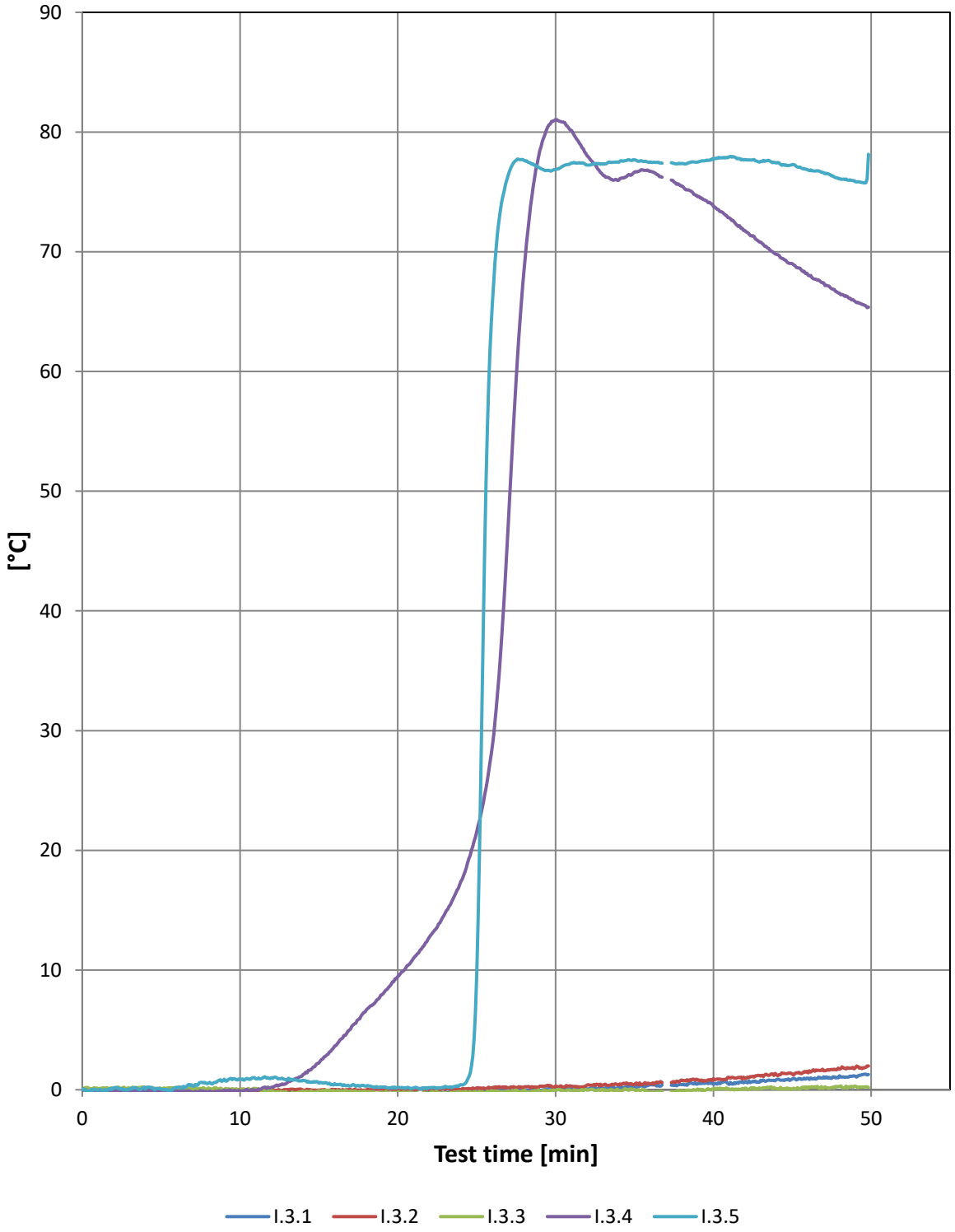
A 30 seconds disconnection of logger box at 36th min

Temperature rise measured in ventilation layer

Min. / °C	I.2.1	I.2.2	I.2.3	I.2.4	I.2.5
0	0	0	0	0	0
2	0	0	0	25	4
4	0	0	0	44	7
6	0	1	1	54	5
8	1	1	1	76	7
10	1	3	3	85	12
12	2	4	4	80	15
14	3	6	5	75	15
15	3	7	6	83	16
16	4	8	7	97	19
18	5	11	9	227	32
20	6	14	12	271	124
22	8	17	14	321	269
24	10	20	16	403	331
26	11	22	18	538	434
28	13	24	19	761	444
30	14	26	20	729	503
32	15	27	21	690	410
34	16	28	22	602	377
36	17	29	23	432	349
38	18	30	23	372	340
40	19	31	24	322	327
42	20	32	25	274	315
44	21	32	26	238	310
46	21	32	26	214	321
48	21	33	26	201	314
49	22	33	27	198	305

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured in middle of insulation



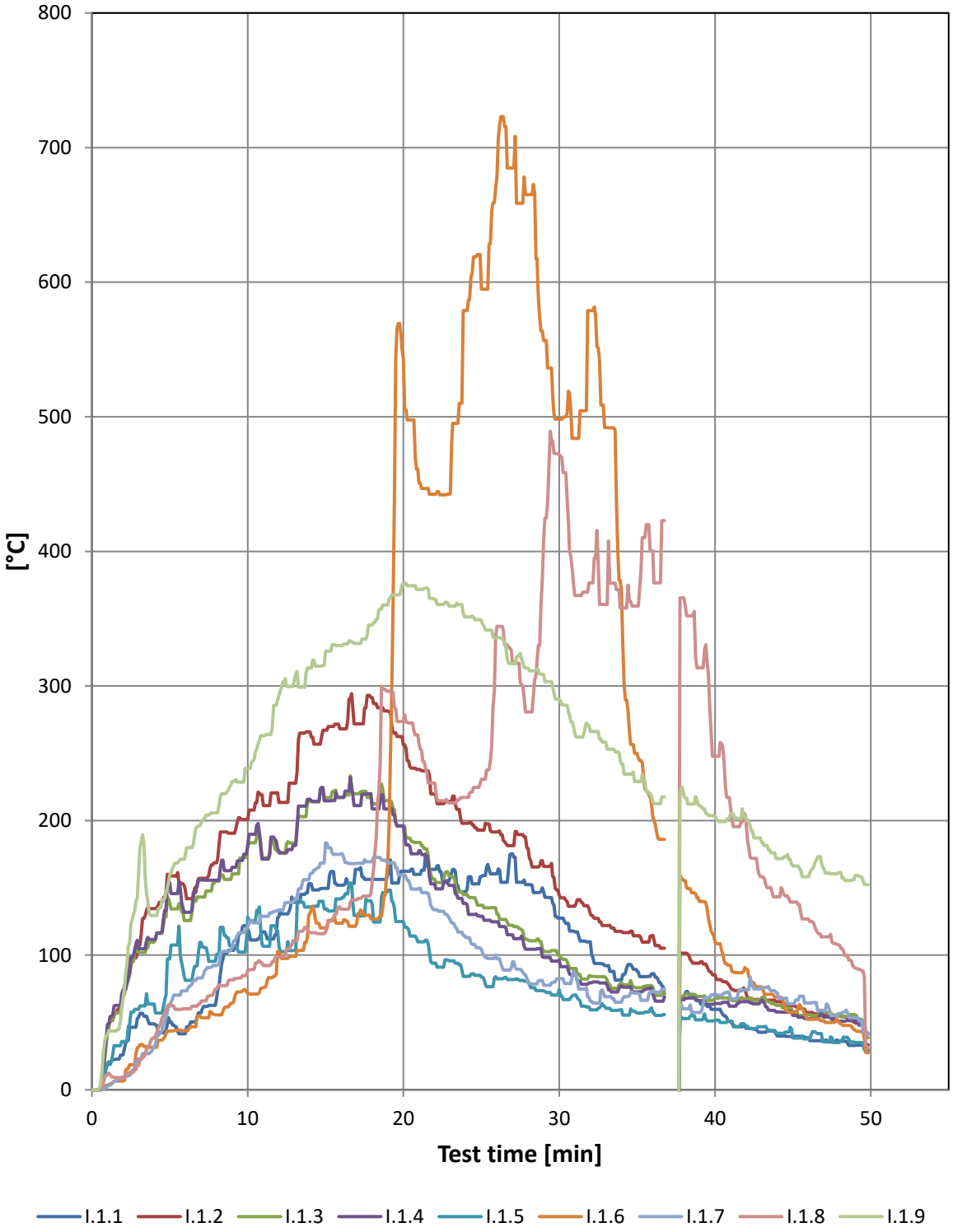
A 30 seconds disconnection of logger box at 36th min

Temperature rise measured in middle of insulation

Min. / °C	I.3.1	I.3.2	I.3.3	I.3.4	I.3.5
0	0	0	0	0	0
2	0	0	0	0	0
4	0	0	0	0	0
6	0	0	0	0	0
8	0	0	0	0	1
10	0	0	0	0	1
12	0	0	0	0	1
14	0	0	0	1	1
15	0	0	0	2	1
16	0	0	0	4	1
18	0	0	0	7	0
20	0	0	0	9	0
22	0	0	0	13	0
24	0	0	0	17	0
26	0	0	0	29	66
28	0	0	0	68	78
30	0	0	0	81	77
32	0	0	0	78	77
34	0	0	0	76	77
36	0	0	0	77	78
38	0	1	0	76	77
40	0	1	0	74	78
42	1	1	0	72	78
44	1	1	0	70	77
46	1	1	0	68	77
48	1	2	0	67	76
49	1	2	0	66	76

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured according to the standard - 50 mm from facade. Minimum of 30 sec



A 30 seconds disconnection of logger box at 36th min

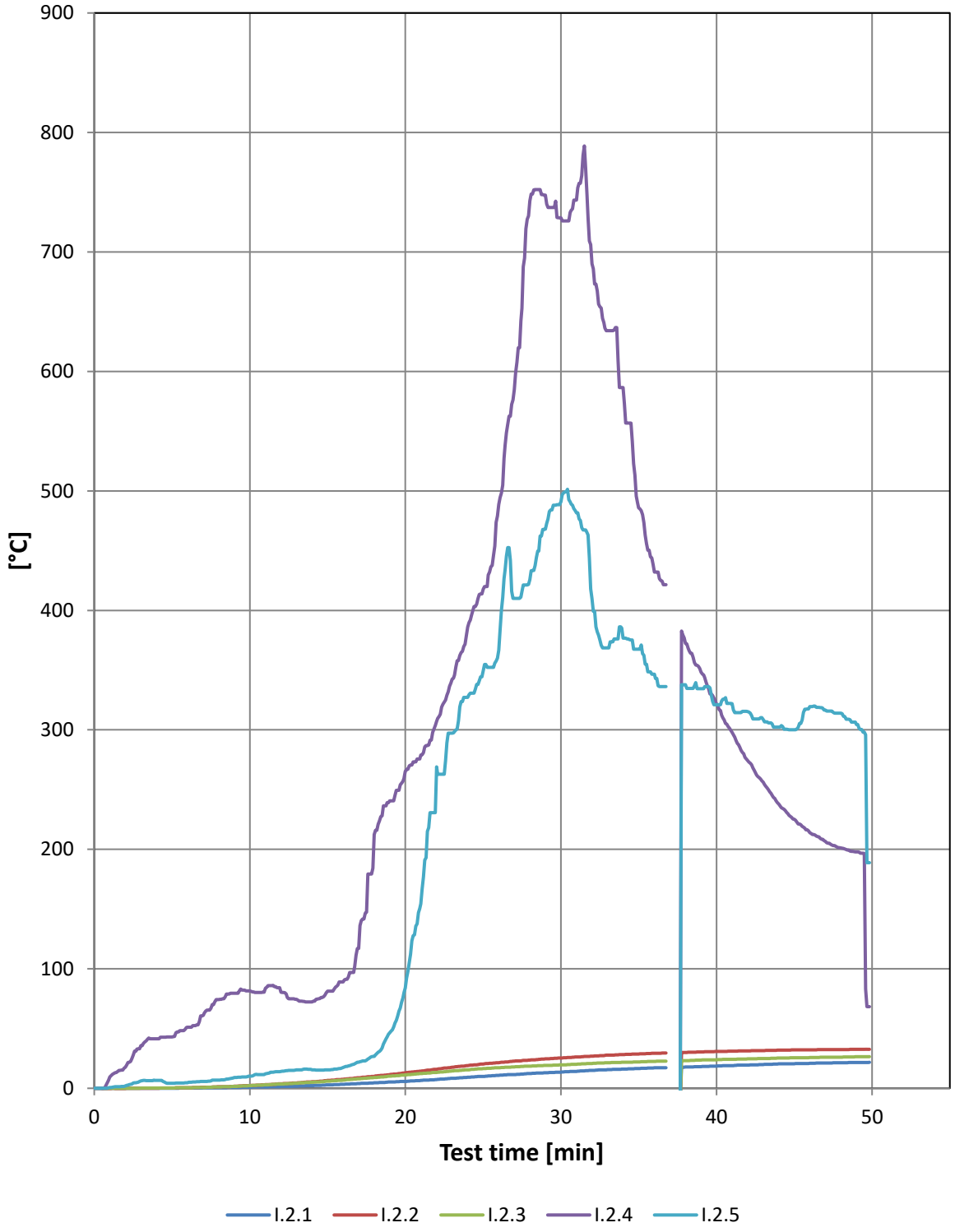
Temperature rise measured according to the standard - 50 mm from facade. Minimum of 30 sec

Min. / °C	I.1.1	I.1.2	I.1.3	I.1.4	I.1.5	I.1.6	I.1.7	I.1.8	I.1.9	I.1.Max
0	0	0	0	0	0	0	0	0	0	0
2	26	69	71	74	36	6	9	9	67	74
4	49	135	110	112	64	32	32	38	129	135
6	41	149	126	132	81	44	73	60	174	174
8	68	169	155	156	101	56	92	75	206	206
10	119	201	181	182	128	71	121	89	239	239
12	129	214	176	177	107	103	133	98	293	293
14	153	266	214	216	136	131	160	117	313	313
15	150	267	217	215	134	120	184	118	326	326
16	152	268	217	217	142	124	175	134	330	330
18	156	291	213	209	138	127	170	155	345	345
20	162	256	196	196	125	543	160	274	376	543
22	164	220	157	153	94	442	134	228	364	442
24	147	198	145	138	84	579	113	217	351	579
26	161	192	131	125	82	678	97	344	336	678
28	152	179	111	104	81	665	79	281	313	665
30	128	145	100	96	74	498	82	472	290	498
32	110	131	85	80	59	579	66	377	266	579
34	82	118	80	77	60	372	65	358	242	372
36	86	115	76	71	57	203	73	400	214	400
38	69	101	70	67	53	155	60	365	218	365
40	60	85	68	64	52	110	71	248	203	248
42	46	72	68	65	47	89	74	198	201	201
44	40	65	63	58	42	69	72	143	172	172
46	39	57	56	53	38	52	64	127	158	158
48	36	56	54	51	35	49	57	108	161	161
49	33	50	55	51	35	44	53	90	159	159

Failure [min]	-	-	-	-	-	19.42	-	-	-	19.42
Failure°C	500	500	500	500	500	500	500	500	500	500

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured according to the standard - ventilation layer. Minimum of 30 sec



A 30 seconds disconnection of logger box at 36th min

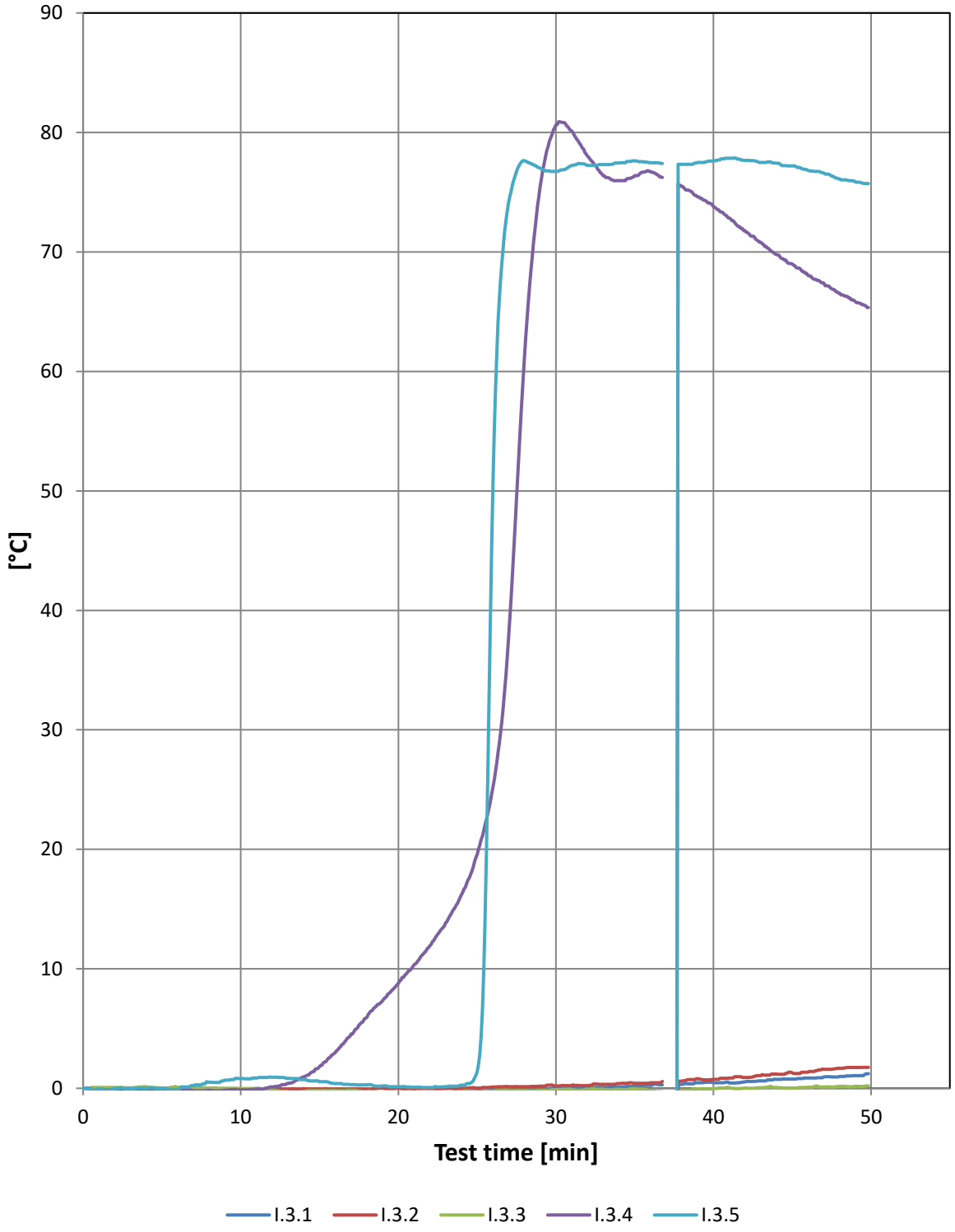
Temperature rise measured according to the standard - ventilation layer. Minimum of 30 sec

Min. / °C	I.2.1	I.2.2	I.2.3	I.2.4	I.2.5	I.2.Max
0	0	0	0	0	0	0
2	0	0	0	18	2	18
4	0	0	0	41	7	41
6	0	0	1	51	5	51
8	1	1	1	74	7	74
10	1	2	2	82	10	82
12	2	4	4	80	14	80
14	2	5	5	72	15	72
15	3	7	6	81	15	81
16	3	8	7	89	17	89
18	5	10	9	213	27	213
20	6	13	11	265	84	265
22	7	16	13	307	269	307
24	9	19	15	386	327	386
26	11	21	17	489	367	489
28	12	24	19	743	426	743
30	14	25	20	729	491	729
32	15	27	21	690	410	690
34	16	28	22	587	377	587
36	17	29	23	432	347	432
38	18	30	23	372	338	372
40	19	31	24	322	321	322
42	19	31	25	274	315	315
44	20	32	25	238	302	302
46	21	32	26	214	319	319
48	21	32	26	201	314	314
49	22	33	26	198	305	305

Failure [min]	-	-	-	26.17	30.33	26.17
Failure°C	500	500	500	500	500	500

A 30 seconds disconnection of logger box at 36th min

Temperature rise measured according to the standard - in the middle of the insulation. Minimum of 30 sec



A 30 seconds disconnection of logger box at 36th min

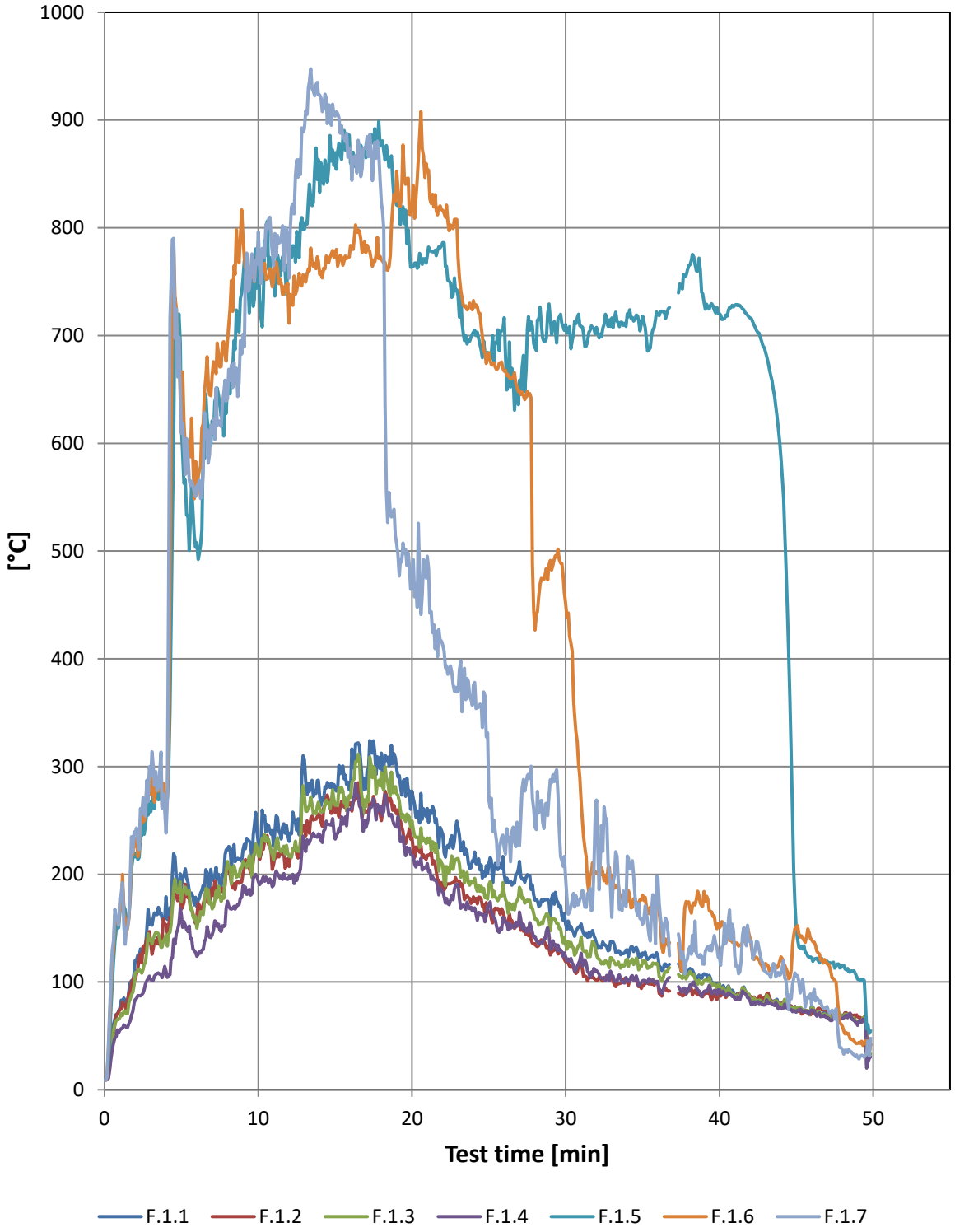
Temperature rise measured according to the standard - in the middle of the insulation. Minimum of 30 sec

Min. / °C	I.3.1	I.3.2	I.3.3	I.3.4	I.3.5	I.3.Max
0	0	0	0	0	0	0
2	0	0	0	0	0	0
4	0	0	0	0	0	0
6	0	0	0	0	0	0
8	0	0	0	0	1	1
10	0	0	0	0	1	1
12	0	0	0	0	1	1
14	0	0	0	1	1	1
15	0	0	0	2	1	2
16	0	0	0	3	0	3
18	0	0	0	6	0	6
20	0	0	0	9	0	9
22	0	0	0	12	0	12
24	0	0	0	16	0	16
26	0	0	0	25	51	51
28	0	0	0	61	78	78
30	0	0	0	81	77	81
32	0	0	0	78	77	78
34	0	0	0	76	77	77
36	0	0	0	77	77	77
38	0	1	0	76	77	77
40	0	1	0	74	78	78
42	1	1	0	72	78	78
44	1	1	0	70	77	77
46	1	1	0	68	77	77
48	1	2	0	67	76	76
49	1	2	0	66	76	76

Failure [min]	-	-	-	-	-	-
Failure°C	500	500	500	500	500	500

A 30 seconds disconnection of logger box at 36th min

Vertical measurements on main facade



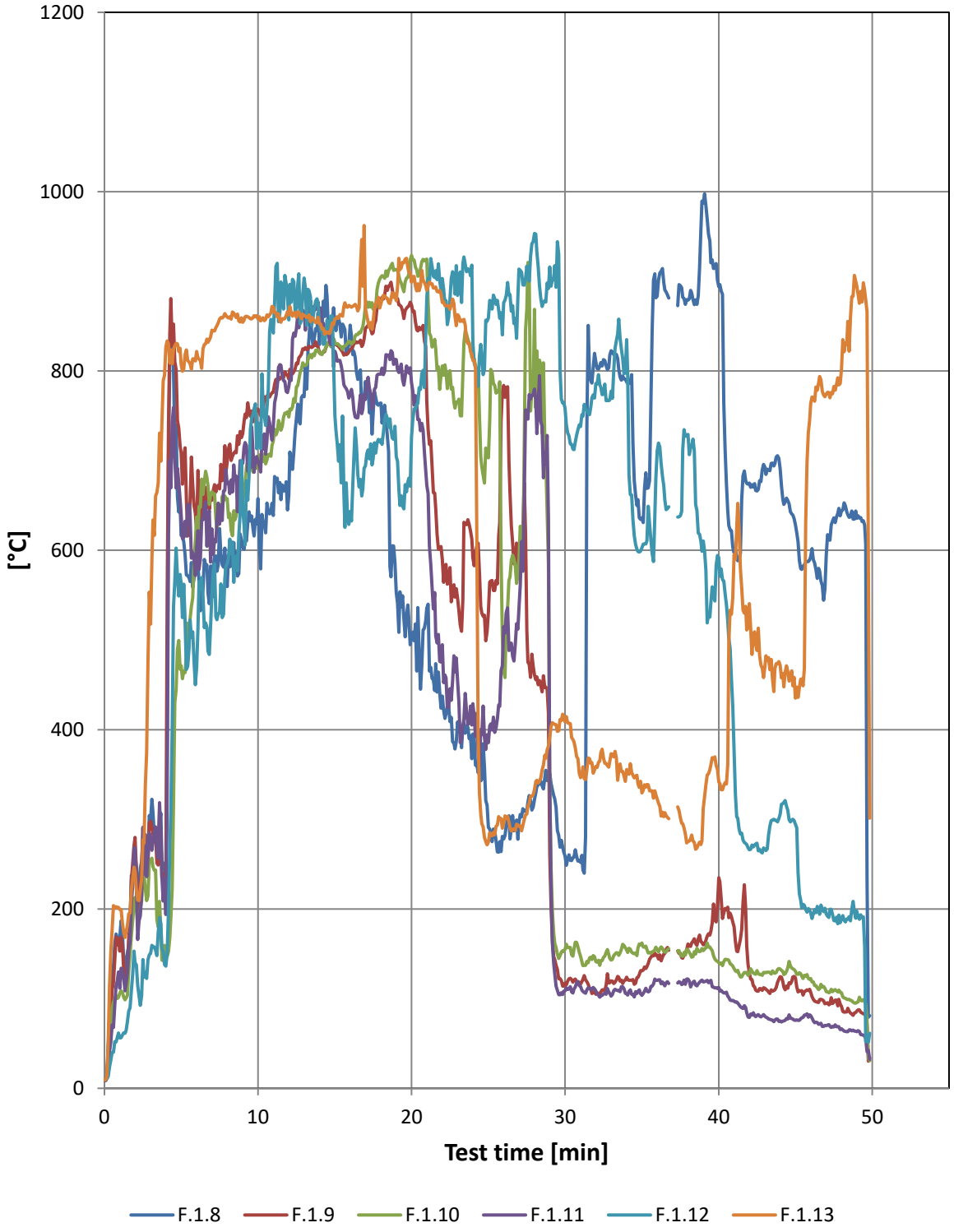
A 30 seconds disconnection of logger box at 36th min

Vertical measurements on main facade

Min. / °C	F.1.1	F.1.2	F.1.3	F.1.4	F.1.5	F.1.6	F.1.7
0	9	9	9	10	10	9	9
2	120	102	109	84	216	226	238
4	179	153	144	110	273	252	238
6	170	161	150	124	508	553	561
8	223	209	212	175	655	694	641
10	229	222	217	193	780	780	796
12	231	207	217	198	763	712	753
14	272	255	262	237	833	757	923
15	280	257	264	233	870	774	904
16	278	267	271	260	860	784	874
18	313	250	294	263	879	771	823
20	277	234	249	218	764	819	465
22	237	187	208	184	786	816	413
24	212	179	192	166	703	732	376
26	200	161	182	159	717	667	224
28	176	135	158	142	689	427	244
30	154	119	135	124	710	451	196
32	136	101	125	111	708	200	269
34	130	100	121	102	720	175	217
36	124	98	116	101	719	178	197
38	110	91	108	92	765	175	130
40	98	89	98	93	720	150	122
42	85	87	86	82	716	140	137
44	80	80	79	76	586	123	107
46	78	71	76	74	122	140	80
48	69	68	68	66	115	59	37
49	61	67	62	60	103	43	30

A 30 seconds disconnection of logger box at 36th min

Vertical measurements on main facade



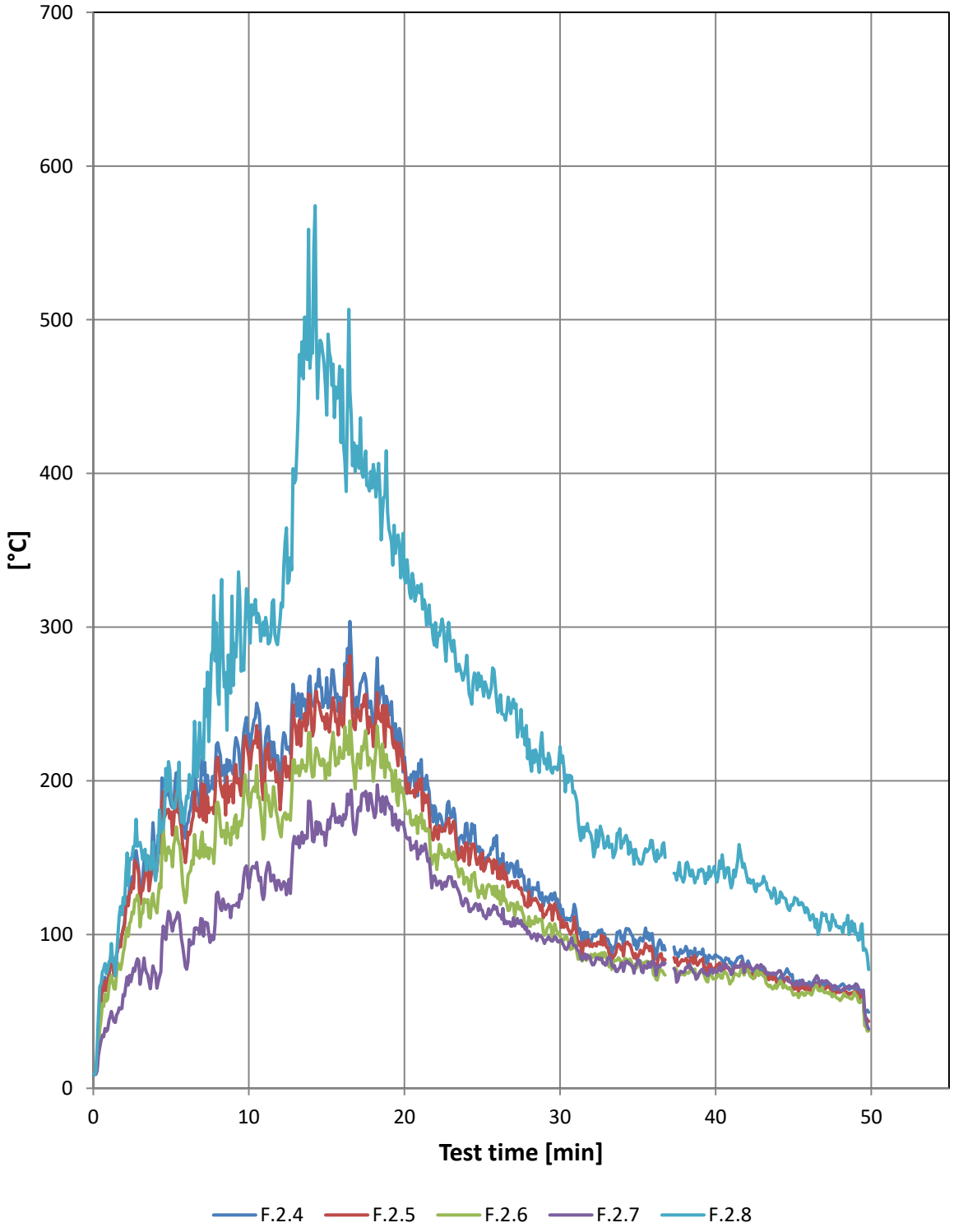
A 30 seconds disconnection of logger box at 36th min

Vertical measurements on main facade

Min. / °C	F.1.8	F.1.9	F.1.10	F.1.11	F.1.12	F.1.13
0	9	9	9	9	9	9
2	260	280	213	268	140	242
4	232	225	148	194	136	827
6	588	621	637	604	470	822
8	560	698	658	674	585	860
10	658	757	699	698	742	858
12	662	791	749	783	857	863
14	829	821	820	863	855	852
15	853	831	831	822	750	858
16	851	824	833	774	643	872
18	764	879	905	797	723	875
20	504	874	929	787	727	899
22	438	590	806	495	903	876
24	395	592	817	429	832	812
26	278	784	465	515	876	295
28	322	461	869	780	953	333
30	259	117	155	109	759	409
32	810	105	141	109	786	359
34	788	124	154	106	835	356
36	883	149	155	120	711	323
38	879	161	155	122	729	275
40	894	235	140	113	592	341
42	675	129	127	79	266	540
44	691	125	133	75	306	472
46	593	107	122	81	196	764
48	644	91	107	66	189	802
49	636	86	96	63	198	895

A 30 seconds disconnection of logger box at 36th min

Vertical measurements on the wing



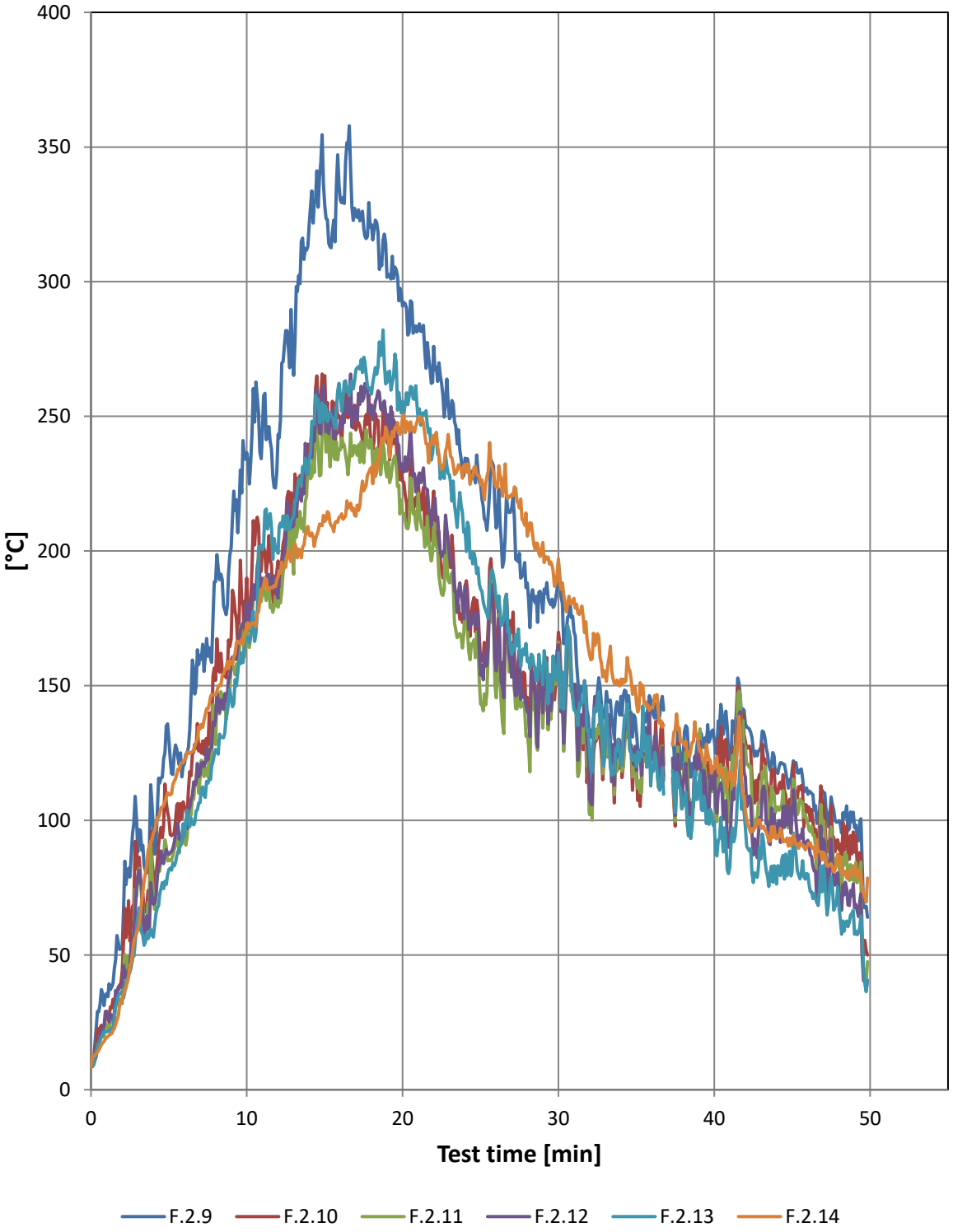
A 30 seconds disconnection of logger box at 36th min

Vertical measurements on the wing

Min. / °C	F.2.4	F.2.5	F.2.6	F.2.7	F.2.8
0	9	9	9	9	9
2	108	106	92	60	120
4	149	137	117	75	135
6	172	154	126	77	190
8	225	215	186	128	258
10	230	216	184	130	305
12	187	181	166	132	305
14	251	240	209	176	481
15	267	244	207	166	438
16	254	237	215	171	468
18	228	222	200	180	406
20	216	212	187	169	332
22	182	170	152	136	303
24	172	160	137	123	282
26	144	137	123	114	244
28	136	128	112	102	227
30	120	112	101	96	222
32	95	93	87	82	164
34	99	92	83	82	161
36	92	82	74	82	154
38	90	83	74	76	137
40	87	78	71	76	138
42	80	76	77	81	138
44	69	67	66	75	122
46	69	67	62	67	112
48	66	63	57	63	105
49	63	61	61	68	100

A 30 seconds disconnection of logger box at 36th min

Vertical measurements on the wing



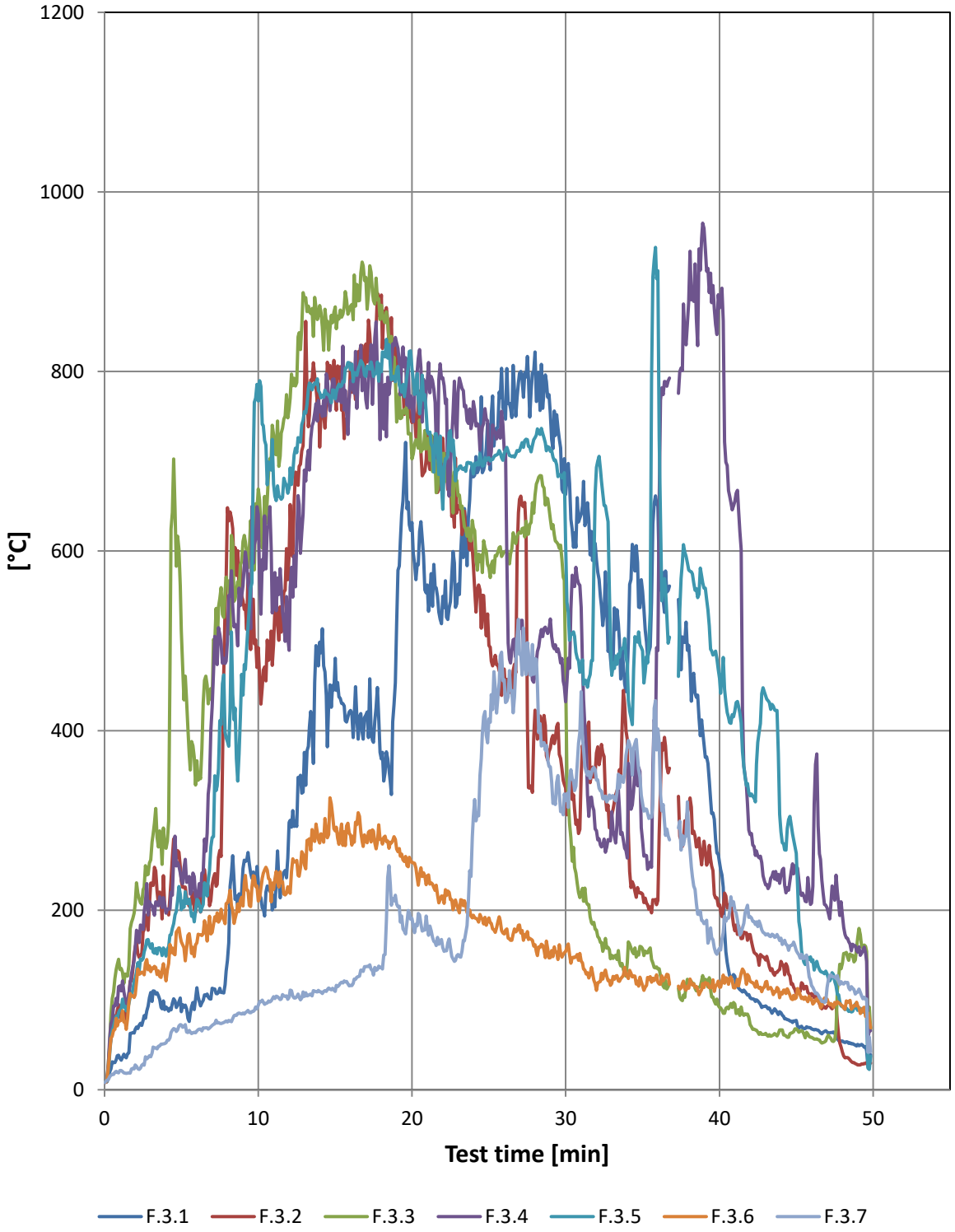
A 30 seconds disconnection of logger box at 36th min

Vertical measurements on the wing

Min. / °C	F.2.9	F.2.10	F.2.11	F.2.12	F.2.13	F.2.14
0	9	9	9	9	9	8
2	53	44	32	39	37	34
4	97	80	71	69	57	95
6	121	105	93	98	94	123
8	189	152	128	138	126	147
10	236	190	173	181	168	171
12	243	196	179	182	199	191
14	321	237	232	236	234	206
15	328	265	247	256	254	211
16	330	248	237	249	258	213
18	321	240	242	254	258	231
20	291	226	214	232	255	250
22	276	222	210	216	241	240
24	235	187	180	187	208	232
26	209	162	145	156	182	224
28	188	146	132	140	159	205
30	196	170	166	165	162	197
32	131	103	102	108	126	162
34	146	129	127	126	121	152
36	141	123	119	124	120	142
38	124	115	117	114	106	129
40	130	116	116	120	99	119
42	136	129	127	116	97	103
44	119	110	104	94	76	93
46	110	103	99	93	80	91
48	100	89	83	73	68	85
49	97	88	77	68	58	83

A 30 seconds disconnection of logger box at 36th min

Horizontal measurements



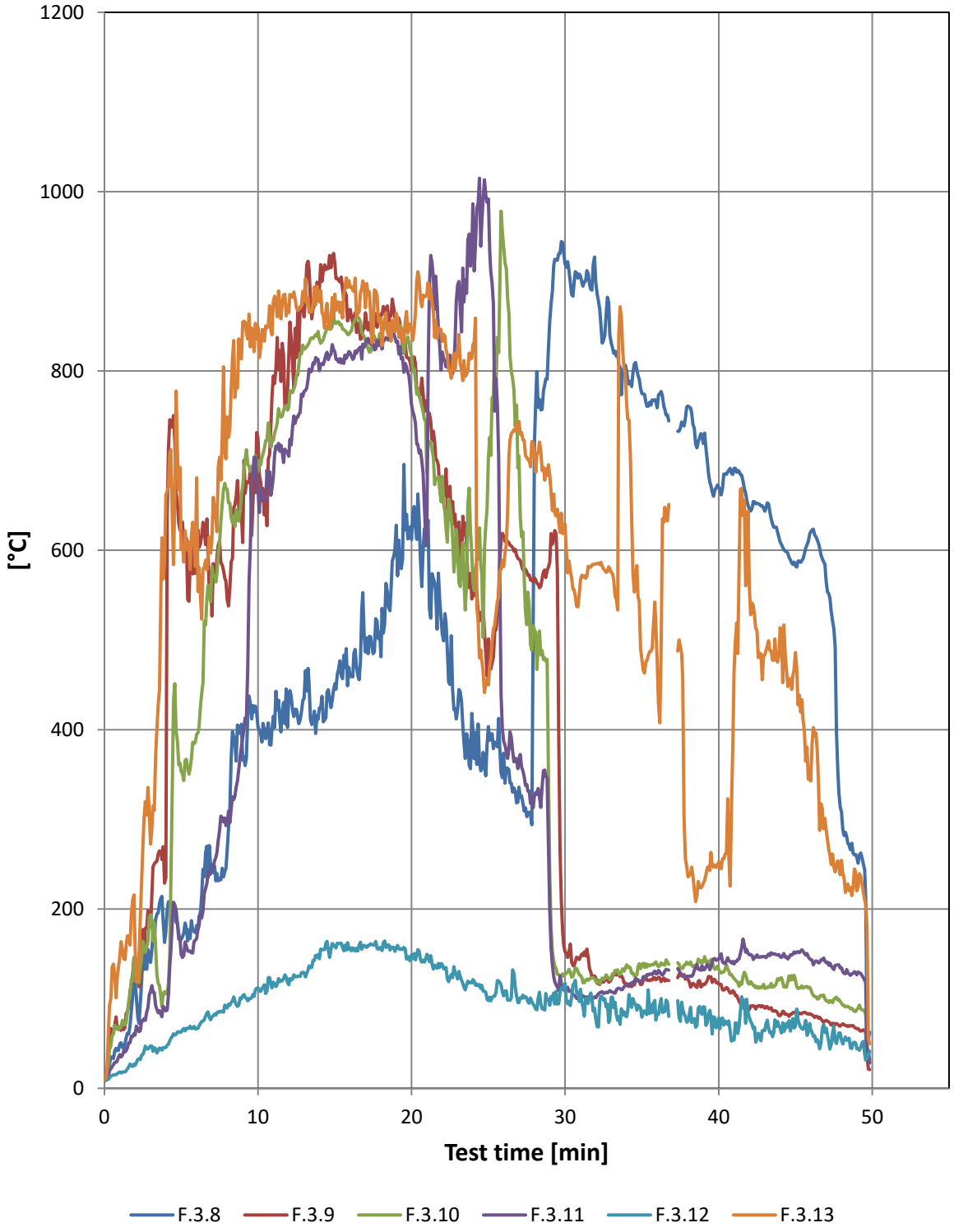
A 30 seconds disconnection of logger box at 36th min

Horizontal measurements

Min. / °C	F.3.1	F.3.2	F.3.3	F.3.4	F.3.5	F.3.6	F.3.7
0	9	9	9	8	9	8	8
2	67	159	207	158	124	106	28
4	92	198	269	197	149	121	52
6	114	215	366	211	212	163	66
8	144	648	564	500	388	208	75
10	232	492	669	641	767	210	94
12	298	595	759	489	671	221	103
14	499	716	873	755	776	275	109
15	481	773	872	772	769	288	109
16	422	809	873	790	802	284	116
18	369	885	874	799	800	279	137
20	632	743	703	767	803	253	191
22	549	726	709	793	647	216	158
24	683	584	626	767	686	194	304
26	757	469	599	713	709	173	457
28	822	423	662	464	726	161	480
30	663	336	465	432	609	154	322
32	590	375	178	289	693	111	345
34	465	390	142	258	475	126	382
36	650	211	134	489	912	120	402
38	495	315	116	878	579	113	282
40	253	206	92	871	458	114	158
42	103	173	73	284	327	121	193
44	86	143	67	239	287	108	169
46	68	107	59	208	143	101	116
48	54	42	141	195	93	93	118
49	50	28	169	153	89	94	109

A 30 seconds disconnection of logger box at 36th min

Horizontal measurments



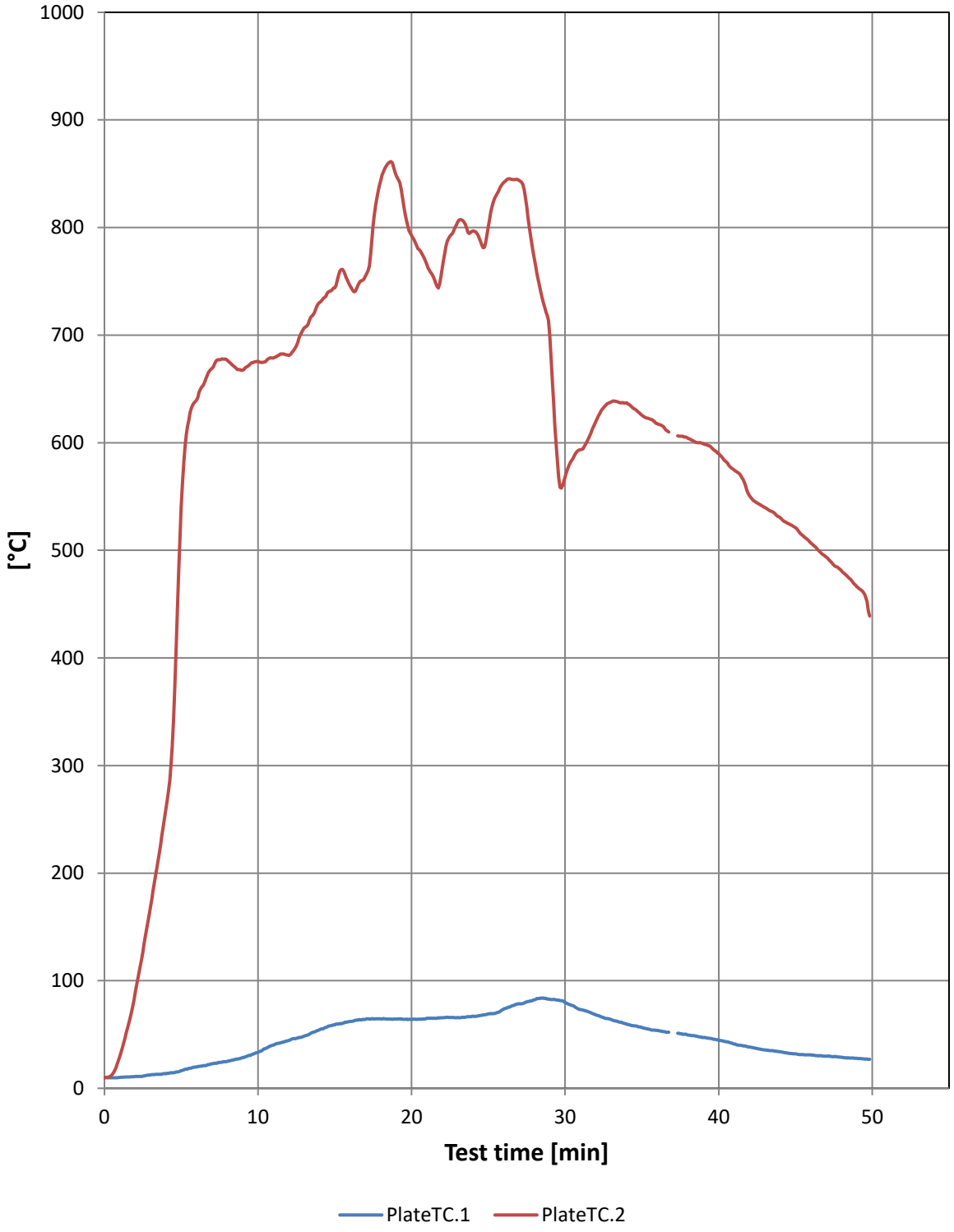
A 30 seconds disconnection of logger box at 36th min (F.3.13 is F3.14 on the Thermocouple drawing)

Horizontal measurments

Min. / °C	F.3.8	F.3.9	F.3.10	F.3.11	F.3.12	F.3.13
0	8	8	8	9	9	10
2	119	141	141	59	26	159
4	174	235	105	86	46	662
6	181	582	395	167	67	681
8	266	545	668	294	89	749
10	403	725	688	669	112	849
12	437	818	759	705	115	865
14	424	892	835	800	144	877
15	451	919	855	821	158	886
16	459	869	844	820	157	894
18	481	863	838	835	157	859
20	612	800	818	763	149	846
22	506	654	683	821	138	833
24	400	555	566	987	121	829
26	374	616	938	387	103	582
28	721	569	511	327	92	706
30	920	152	127	108	117	629
32	898	123	119	101	77	585
34	800	116	138	116	80	763
36	759	122	138	128	83	475
38	761	122	139	124	75	236
40	670	116	133	144	79	252
42	647	88	116	149	79	559
44	609	81	123	147	67	514
46	621	82	110	143	66	343
48	308	71	95	134	54	254
49	258	67	88	127	44	220

A 30 seconds disconnection of logger box at 36th min

Plate thermocouple on facade



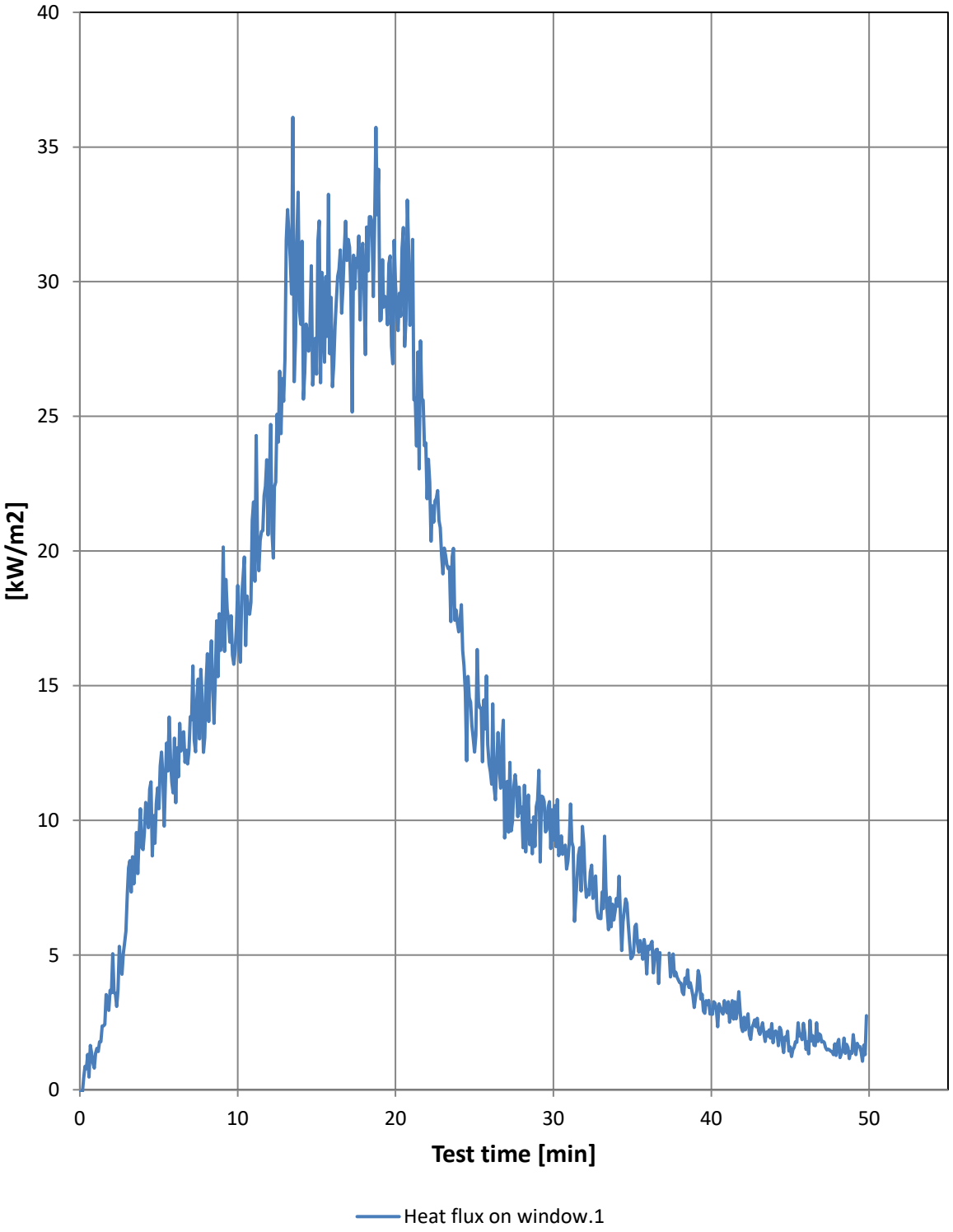
FacadePlateTC.1 Bottom
FacadePlateTC.2 Top

Plate thermocouple on facade

Min. / °C	PlateTC.1	PlateTC.2
0	10	10
2	11	88
4	14	259
6	20	640
8	25	677
10	34	676
12	45	681
14	54	730
15	59	744
16	62	746
18	65	845
20	64	793
22	66	763
24	67	797
26	74	842
28	82	770
30	80	568
32	68	620
34	60	637
36	54	618
38	50	604
40	45	590
42	38	551
44	34	530
46	31	507
48	29	481
49	28	466

FacadePlateTC.1 Bottom
FacadePlateTC.2 Top

Heat flux on window



A 30 seconds disconnection of logger box at 36th min

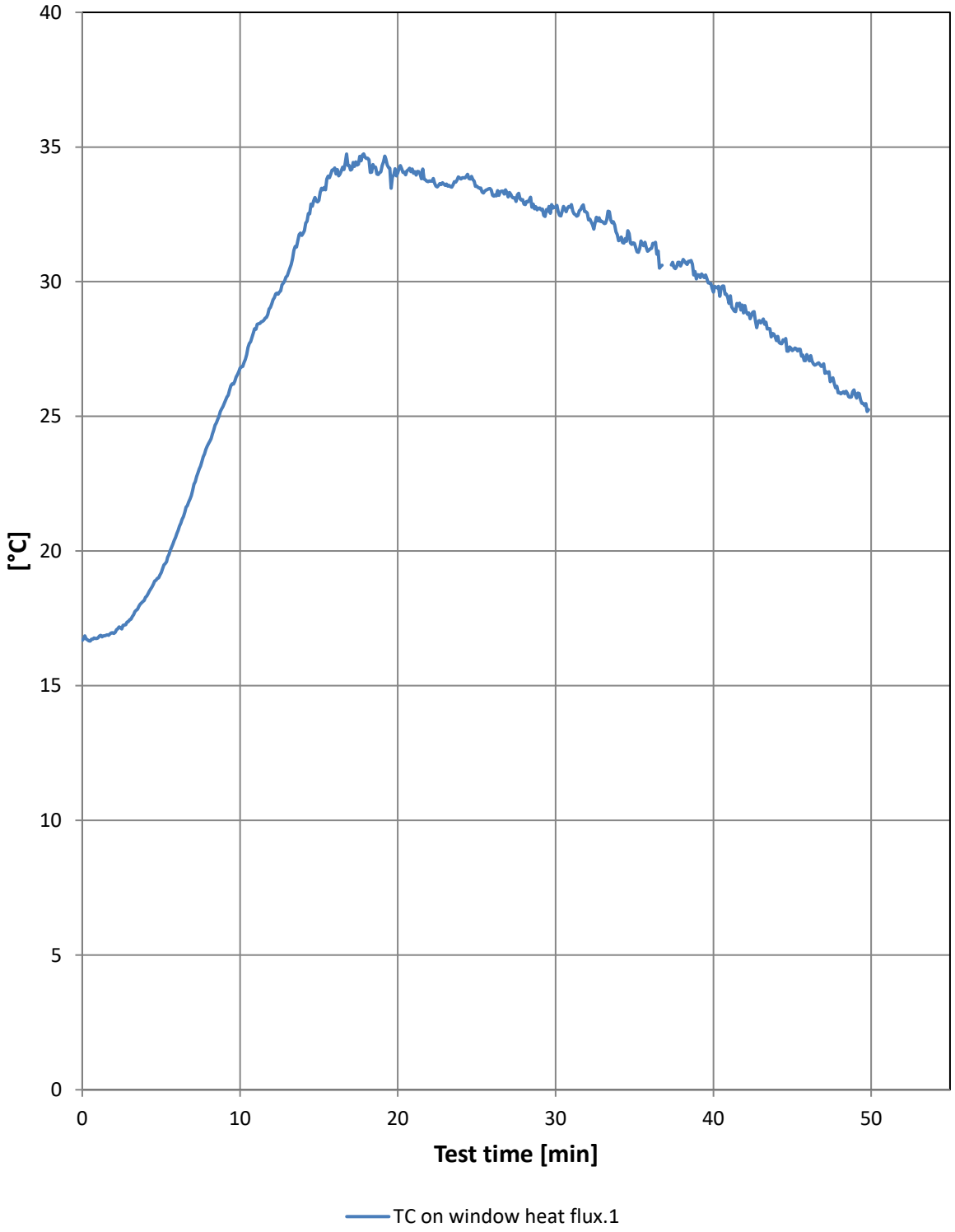
Heat flux on window

Min. / kW/m2	Heat flux on window.1
0	0
2	4
4	9
6	13
8	15
10	19
12	23
14	28
15	27
16	26
18	30
20	30
22	22
24	17
26	12
28	10
30	9
32	8
34	7
36	5
38	4
40	3
42	2
44	2
46	2
48	2
49	2

A 30 seconds disconnection of logger box at 36th min

TC on window heat Flux

Flux.TC. on window



A 30 seconds disconnection of logger box at 36th min

TC on window heat Flux

Flux.TC. on window

Min. / °C	TC on window heat flux.1
0	17
2	17
4	18
6	21
8	24
10	27
12	29
14	32
15	33
16	34
18	35
20	34
22	34
24	34
26	33
28	33
30	33
32	33
34	32
36	31
38	31
40	30
42	29
44	28
46	27
48	26
49	26

A 30 seconds disconnection of logger box at 36th min

Photo No. 1 Prefabricated cassettes being mounted.

Photo No. 2 Fixing of prefabricated cassettes.

Photo No. 3 Insulation in the gap between two cassettes.

Photo No. 4 Flame deflector is being mounted.

Photo No. 5 Vertical formworks have been mounted.

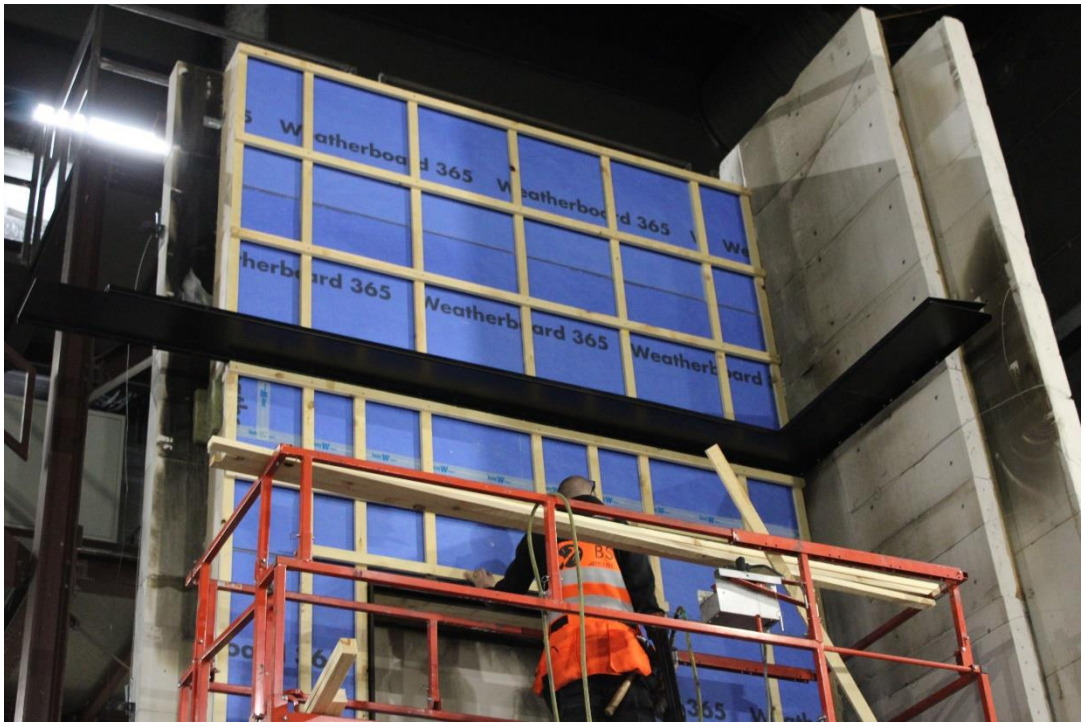


Photo No. 6 Horizontal formworks have been mounted.

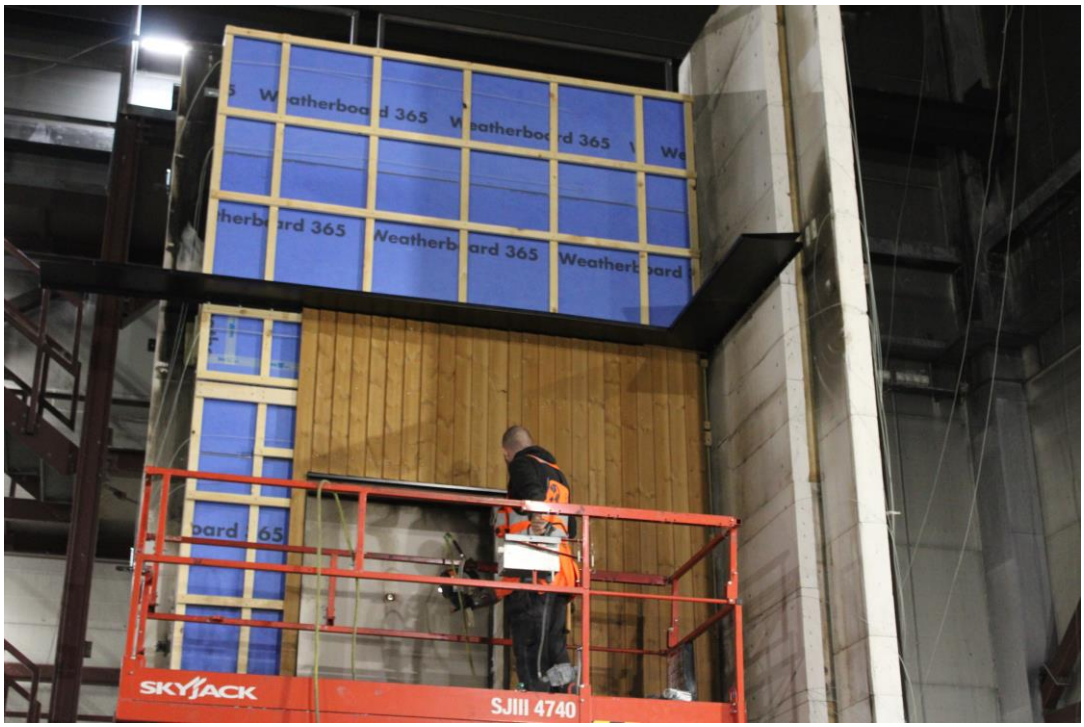


Photo No. 7 Vertical cladding is being mounted.

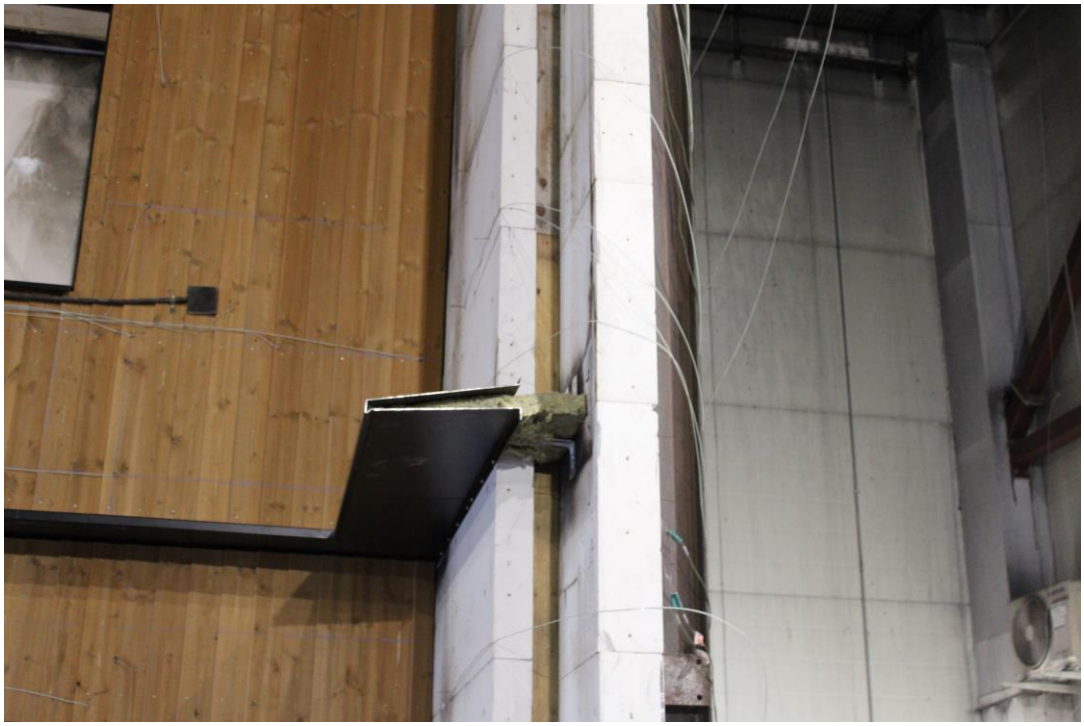


Photo No. 8 Insulation between the flame deflector.

Photo No. 9 Test specimen before start test.

Photo No. 10 Test specimen at start test.

Photo No. 11 Test specimen 1 minutes into the test.

Photo No. 12 Test specimen 3 minutes into the test.

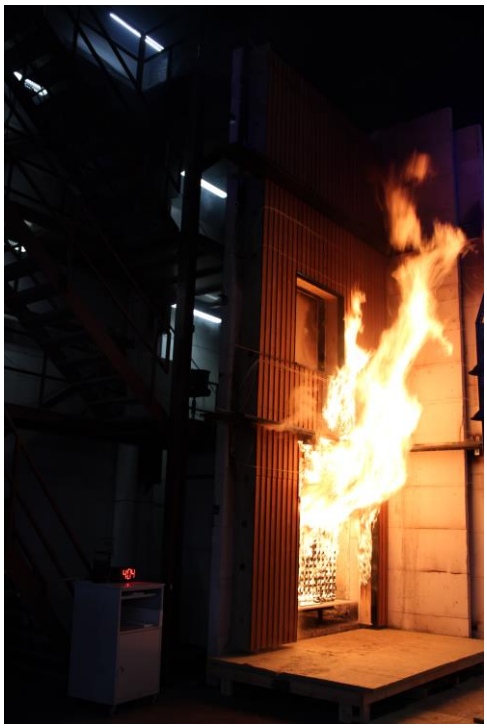


Photo No. 13 Test specimen 4 minutes into the test.

Photo No. 14 Test specimen 6 minutes into the test.

Photo No. 15 Test specimen 10 minutes into the test.

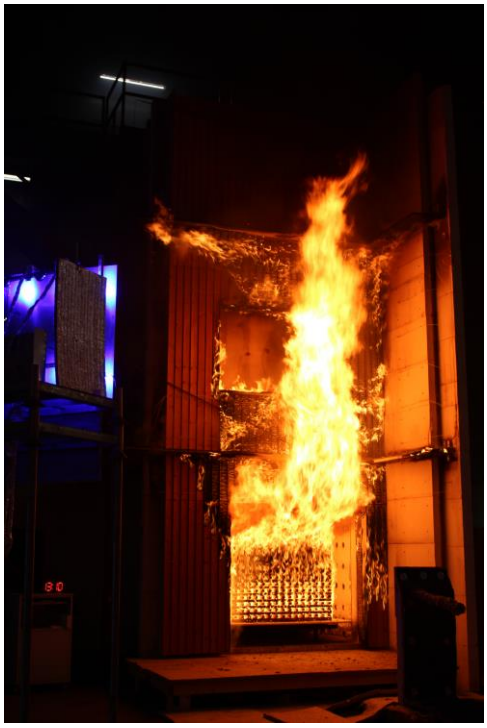


Photo No. 16 Test specimen 13 minutes into the test.

Photo No. 17 Test specimen 18 minutes into the test.

Photo No. 18 Test specimen 26 minutes into the test.

Photo No. 19 Test specimen 32 minutes into the test.

Photo No. 20 Test specimen 39 minutes into the test.

Photo No. 21 Ember from second floor 43 minutes into the test.

Photo No. 22 Test specimen 49 minutes into the test.

Photo No. 23 Test specimen after the test.

Photo No. 24 Test specimen after the test. Detailed photo of the top of fire chamber.

Photo No. 25 Test specimen after the test. Corner below the first flame deflector.

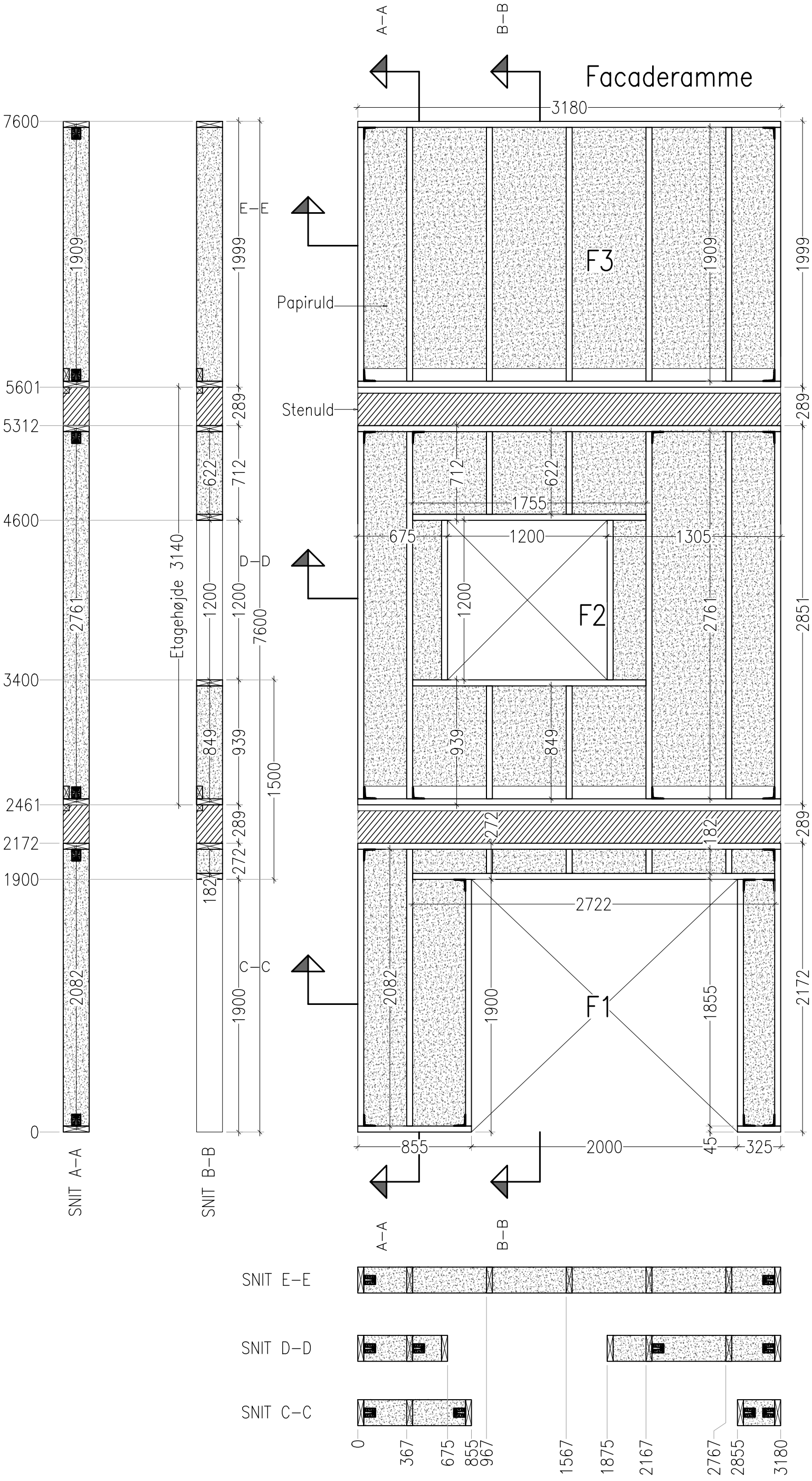
Photo No. 26 Test specimen after the test. Corner below the second flame deflector.

Photo No. 25 Test specimen after the test. Corner below the second flame deflector.

Photo No. 26 Test specimen after the test. Corner below the second flame deflector after removing weatherboard.

Photo No. 25 Test specimen after the test. Detailed photo above second flame deflector.

Photo No. 26 Test specimen after the test. Detailed photo of wooden frame corner.



Materialer:

Træ:

F1:

45x195:

325
855
2722
3180
2082–2
1855–2
182–2

F2:

45x195:

3180–2
1755–2
2771–2
849–2
1200–2
632–2

45x45:

3180

F3:

45x195:

3180–2
1899–7

45x45:

3180

Vinkelbeslag:

Simpson ABR9020
Kamsøm 4x40

Samling af trærammer:

Ringede pistolsøm 3,1x90

45x45 indlæg:

Ringede pistolsøm 2,8x75

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)
22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)
9,5mm Knauf Weatherboard 365
45x195mm stoplekonstruktion pr. 600mm
195mm Isocell (isolering kl 37)
195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Isolering tilføjet, opdatering af befæstigelse

DBI
PGC10035A

Mads Mock

BFUH-6 Facadetest ved DBI

Foreløbig

Facaderamme

BYGHERRE:
Fælledby
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DATO: 2024-02-27
REV. NR/DATO: 2024-03-04
ANSV: CMA
MÅL: 1:30
ANTAL: –
TEGN.NR: 1

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

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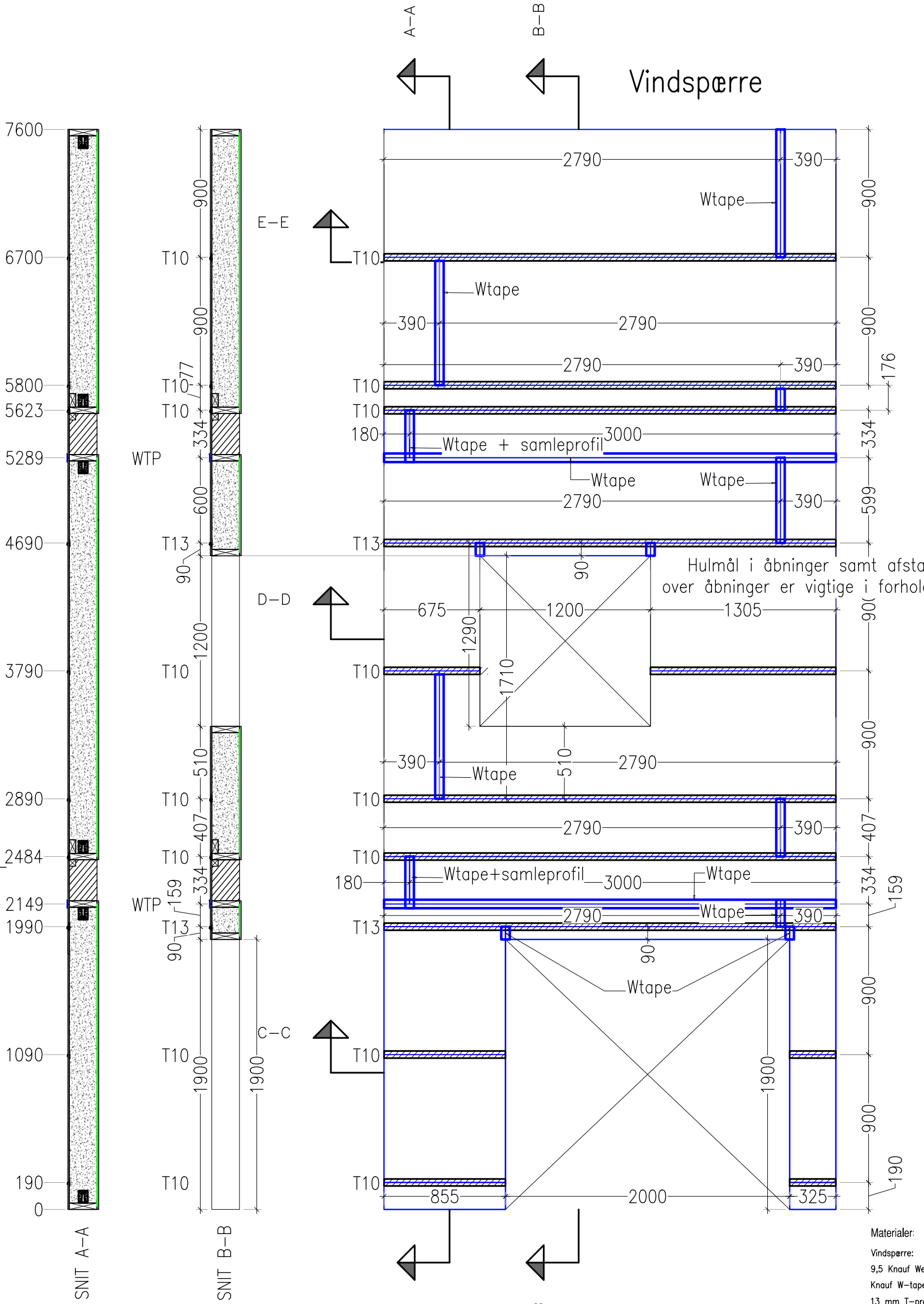

DBI PGC10035A

Mads Mock

Materialer:

Vindspærre:

9,5 Knauf Weatherboard 365 – 900x3000mm – 12 stk.

Knauf W–tape til lodrette og vandrette samlinger

13 mm T–profil – leveres af BM Byggeindustri A/S

Ringede galvaniserede pistolsøm 2,5 x 50

195mm Isocell isolering – bagside afdækkes af isoleringsdug fra isocell

12mm OSB3 1220x2420 på bagside for at holde på isolering. Samme befæstigelser som vindspærre.

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)

22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)

9,5mm Knauf Weatherboard 365

45x195mm stoplekonstruktion pr. 600mm

195mm Isocell (isolering kl 37)

195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Vindspærre ændret i størrelse og lagt ned. Flere T–profiler. Isoleringsdug og OSB–plade tilføjet.

BFUH-6 Facadetest ved DBI — Foreløbig

Vindspærre

BYGHERRE:
Fælledby
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DATO: 2024–02–27 REV. NR/DATO: 2024–03–04

ANSV: CMA MÅL: 1:30 ANTAL: –

TEGN.NR: 2

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

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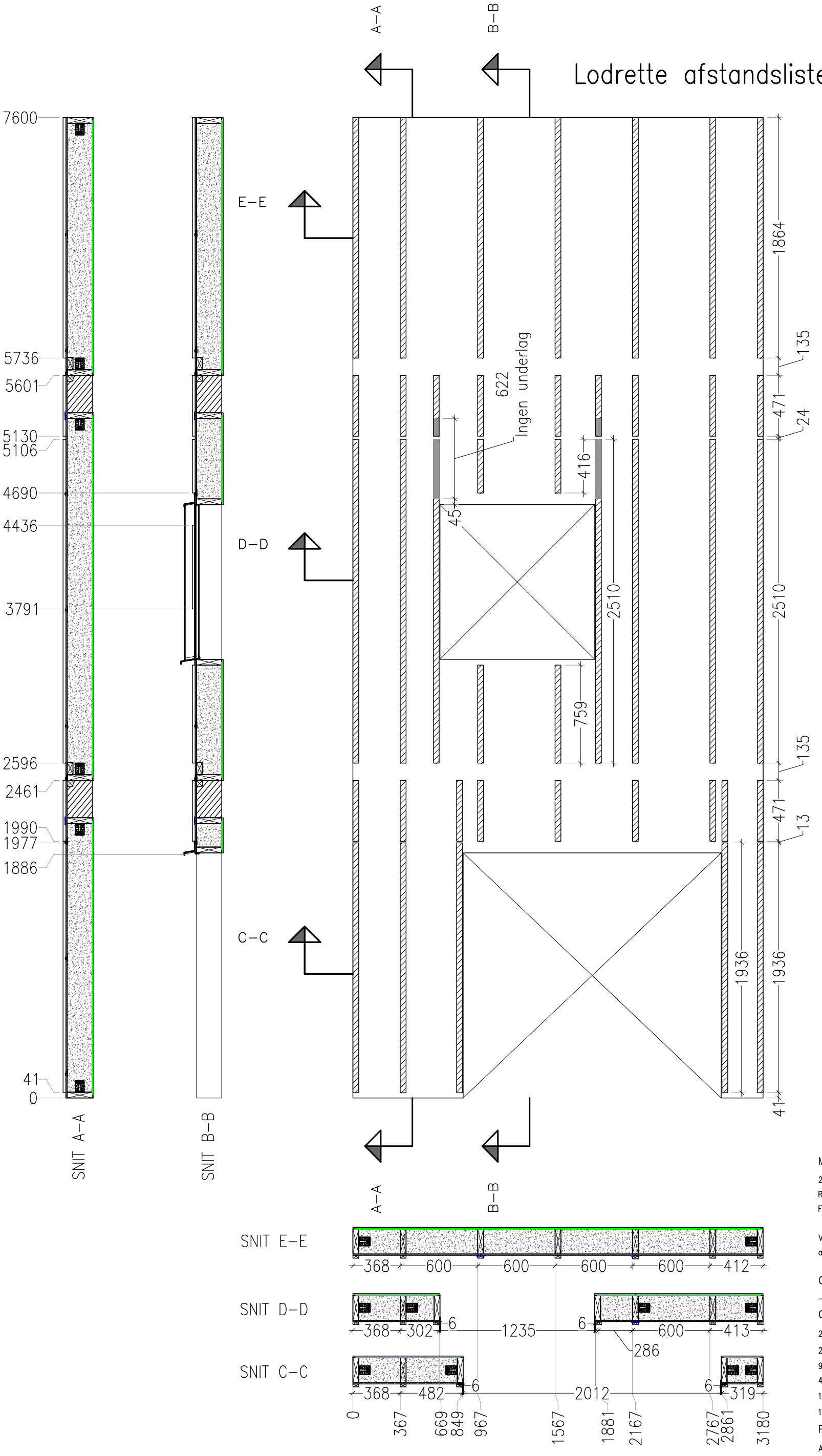

Materialer:

22x45mm afstandslister i gran ubehandlet LBM:
Ringede galvaniserede pistolsøm 2,8 x 75
Flammeafbøjer leveres af Facadeplan

Vinduesinddækninger leveres af BM Byggeindustri og monteres inden afstandslister

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)
22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)
9,5mm Knauf Weatherboard 365
45x195mm stoplekonstruktion pr. 600mm
195mm Isocell (isolering kl 37)
195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Befæstigelse tilføjet

BFUH-6 Facadetest ved DBI

Foreløbig

L Afstandslister

BYGHERRE:
Fælledby
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DATO: 2024-02-27 REV. NR/DATO: 2024-03-04
ANSV: CMA MÅL: 1:30 ANTAL: –
TEGN.NR: 3

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

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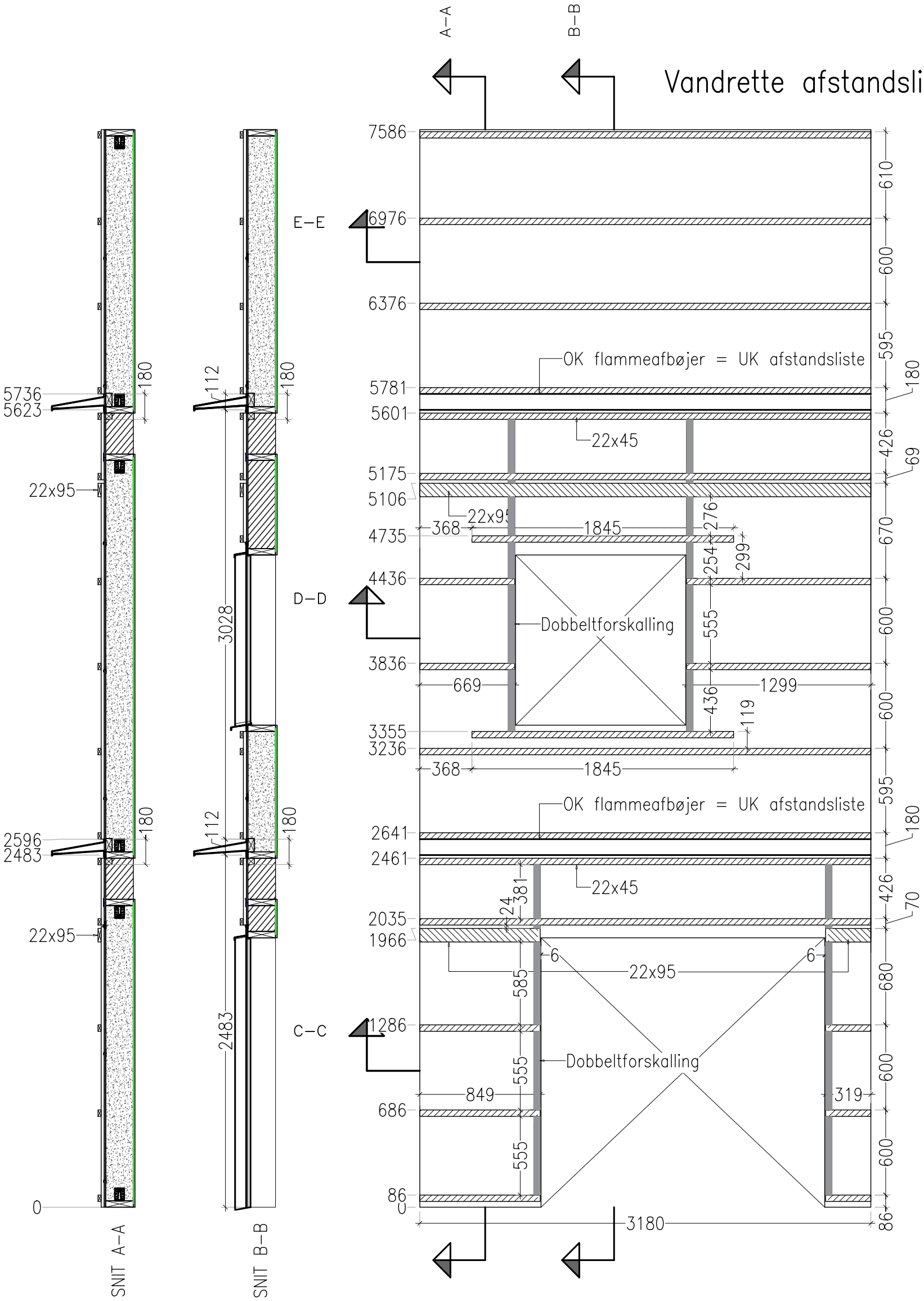
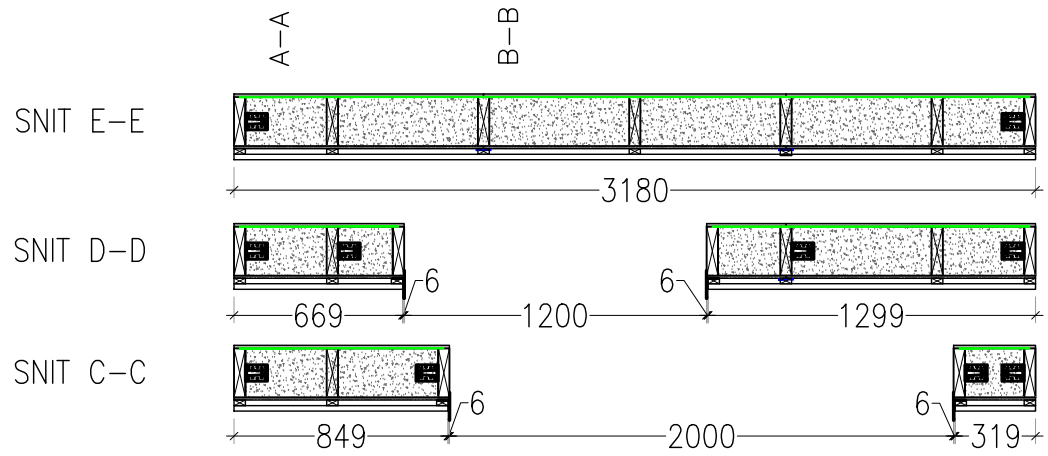
Vandrette afstandslister



SNIT A–A

SNIT B–B



Materialer:

22x45mm + 22x95 afstandslister i gran ubehandlet LBM:
Ringede galvaniserede pistolsøm 3,1 x 90

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)
22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)
9,5mm Knauf Weatherboard 365
45x195mm stoplekonstruktion pr. 600mm
195mm Isocell (isolering kl 37)
195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Bredforskalling samt befæstigelse tilføjet

DBI
PGC10035A

Mads Mock

BFUH-6 Facadetest ved DBI — Foreløbig

V Afstandslister

BYGHERRE:
Fælledby
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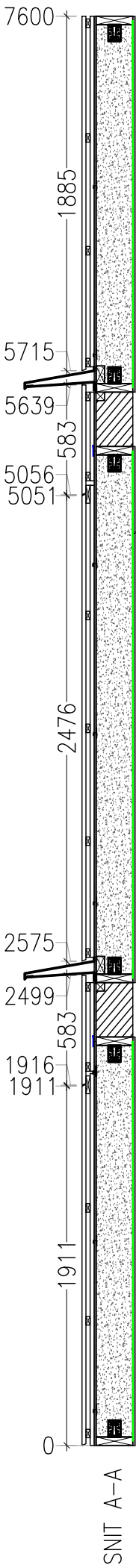
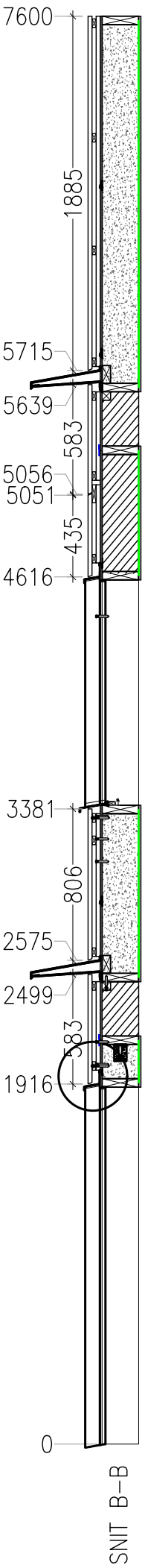
DATO:	2024-02-27	REV. NR/DATO:			2024-03-04
ANSV:	CMA	MÅL:	1:30	ANTAL:	–
TEGN.NR:					4

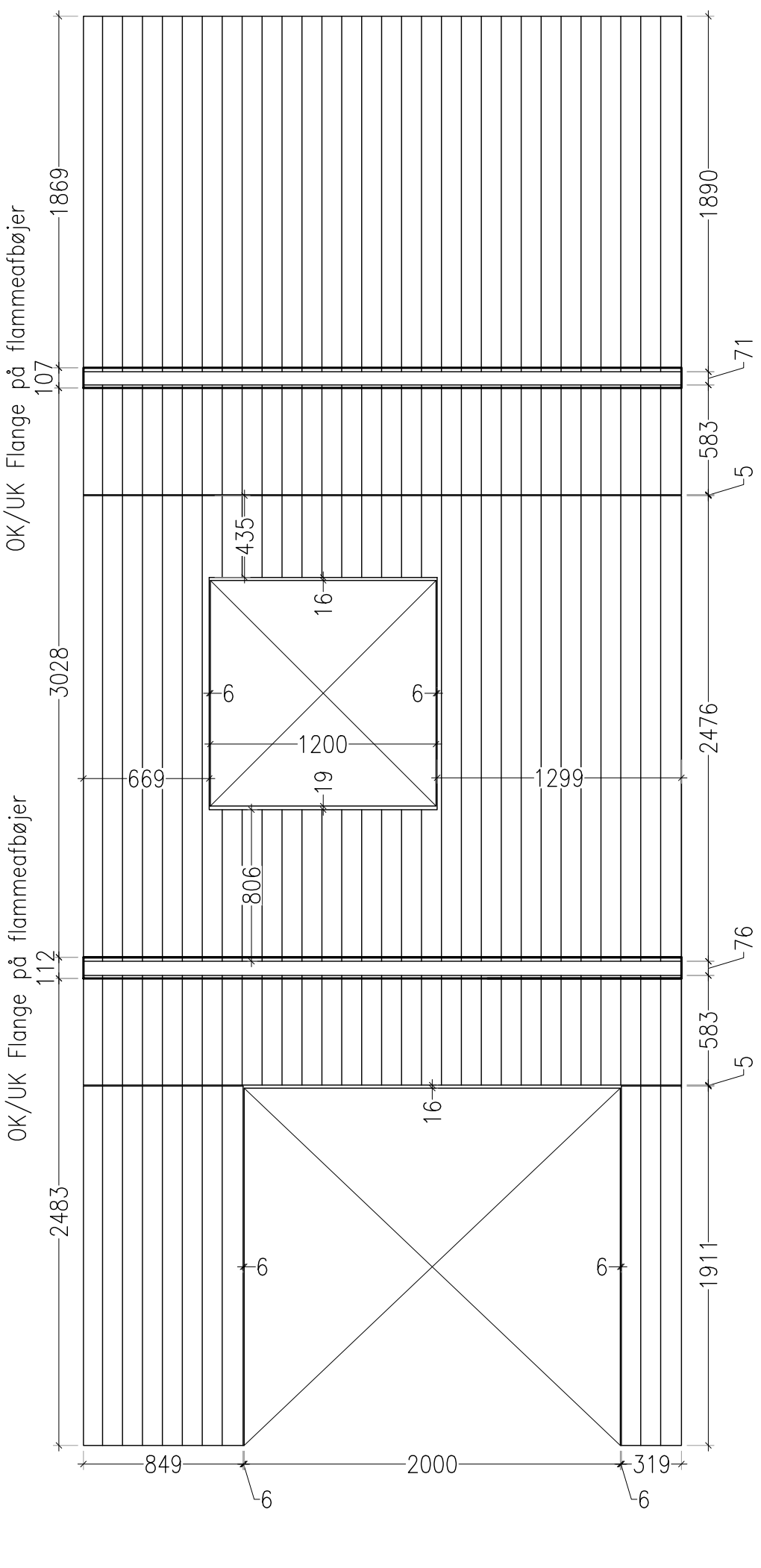
BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

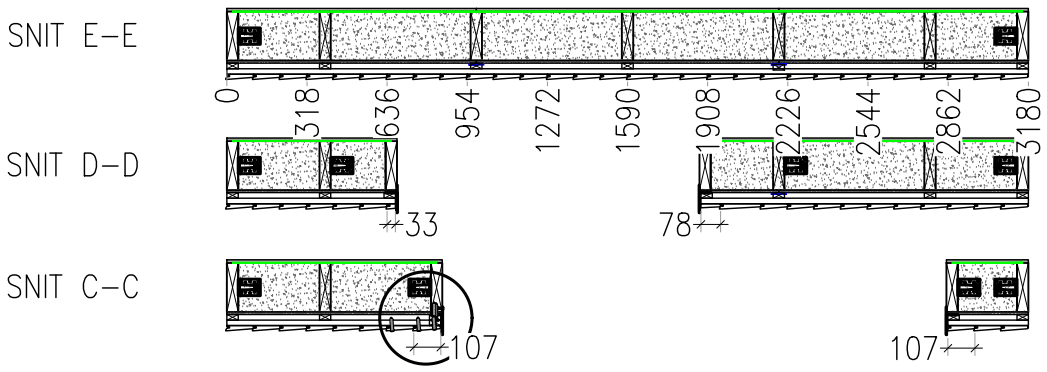
K:\031_Teknisk\02 Brand\Fælledby Brandtest\Mock-Up_BMB_2.dwg

Facade









Materialer:

22mm Frøslev klinkeprofil – Termowood (lodret) LBM:
Rundhovedet rustfri A4 pistolsøm 2,5x50

Generelt:

–

Opbygning:

22mm Frøslev klinkeprofil – Termowood (lodret)
22x45mm Afstandslister (gran) pr. 600mm (krydsforskallet)
9,5mm Knauf Weatherboard 365
45x195mm stoplekonstruktion pr. 600mm
195mm Isocell (isolering kl 37)
195mm Rockwool (isolering kl 37) (over vinduer og i lukkestykker)

Revisionstekst:

A) Befæstigelse tilføjet

DBI
PGC10035A

Mads

BFUH-6 Facadetest ved DBI

Foreløbig

Facadebeklædning

BYGHERRE:
Fælledby
–
–

DATO: 2024-02-27 REV. NR/DATO: 2024-03-04

ANSV: CMA MÅL: 1:30 ANTAL: –

TEGN.NR: 5

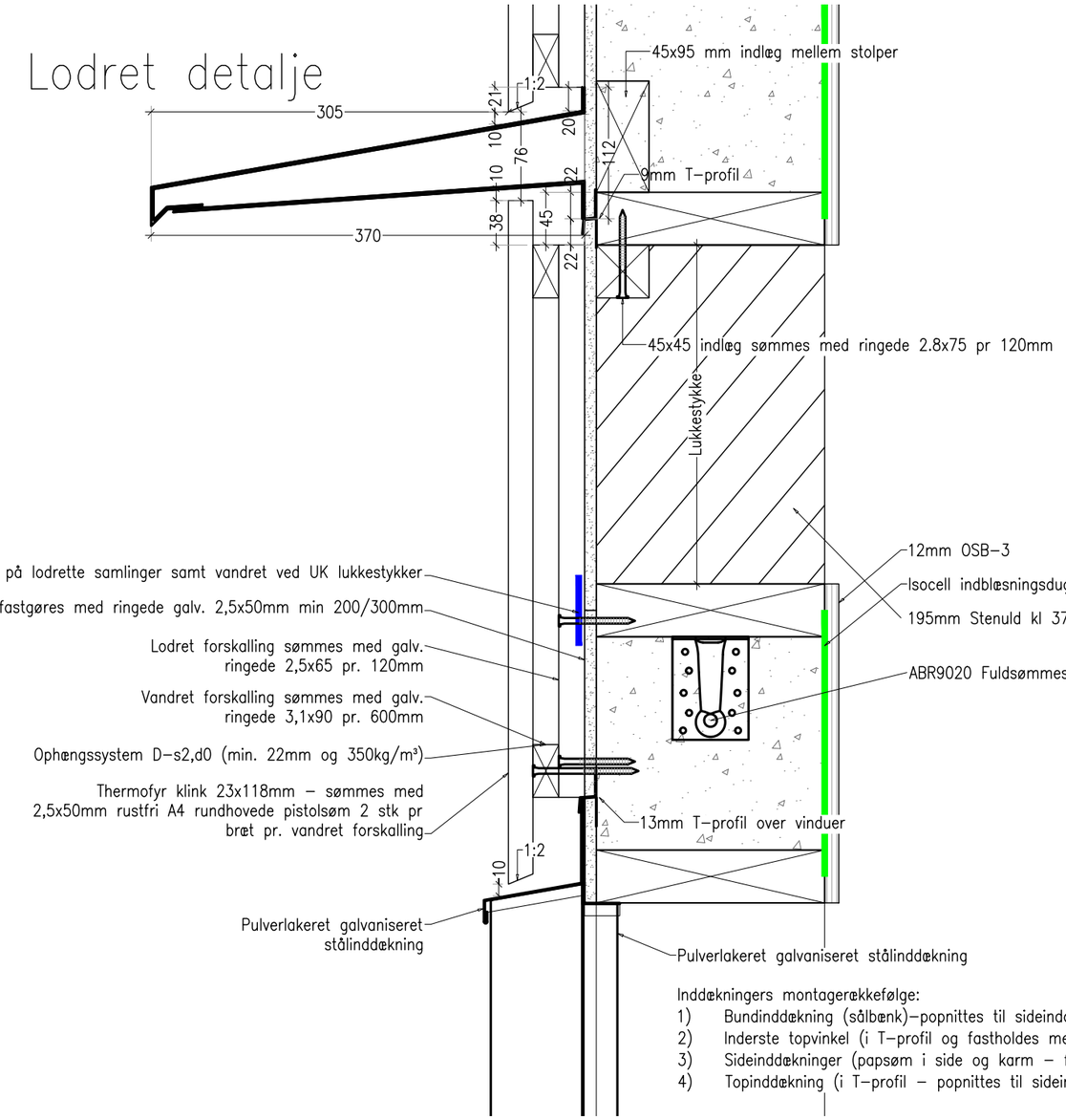
BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

K:\031_Teknisk\02 Brand\Fælledby Brandtest\Mock-Up_BMB_2.dwg

DBI
PGC10035A

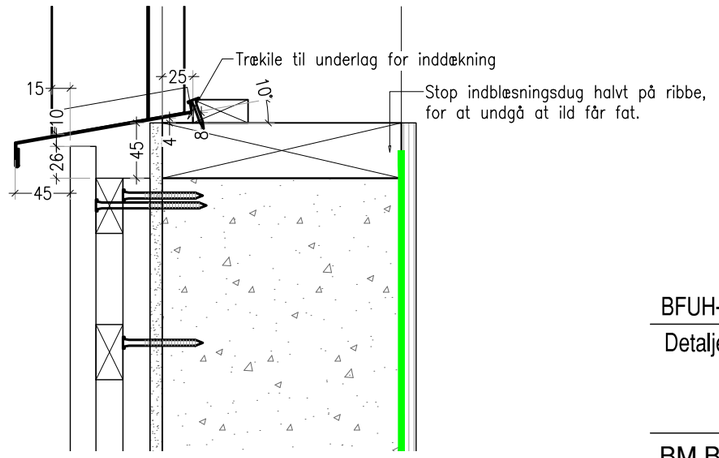
Mads Mock

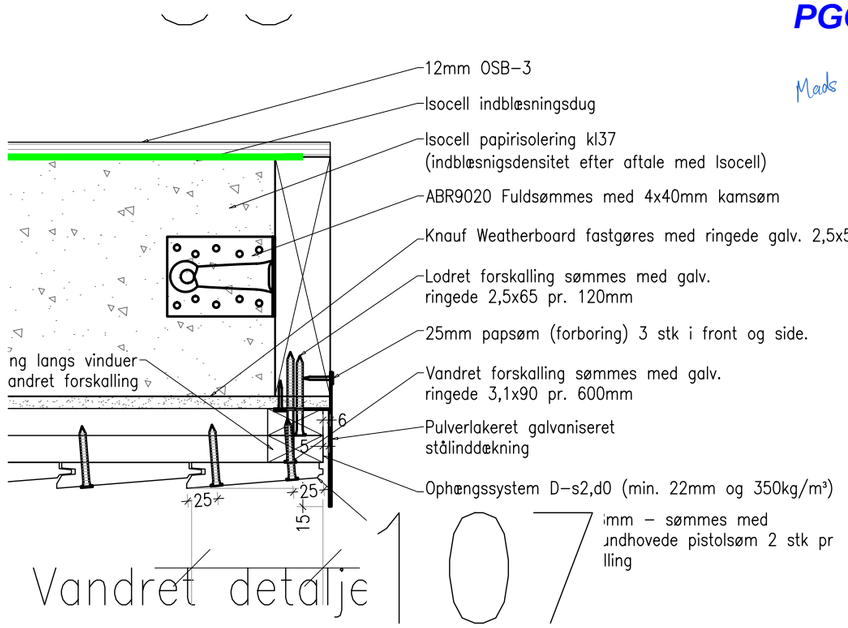
Lodret detalje



Inddækningers montagerækkefølge:

1) Bundinddækning (sålbænk)–popnittes til sideinddækning – forbores)
2) Inderste topvinkel (i T–profil og fastholdes med papsøm – forbores)
3) Sideinddækninger (papsøm i side og karm – forbores))
4) Topinddækning (i T–profil – popnittes til sideinddækning – forbores)





Vandret detalje 107

mm – sømmes med
ndhovede pistolsøm 2 stk pr
lling

BFUH-6 Facadetest ved DBI — Foreløbig

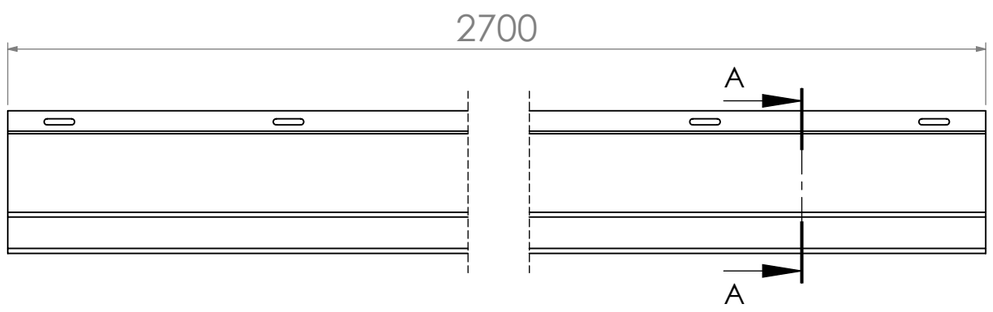
Detaljer

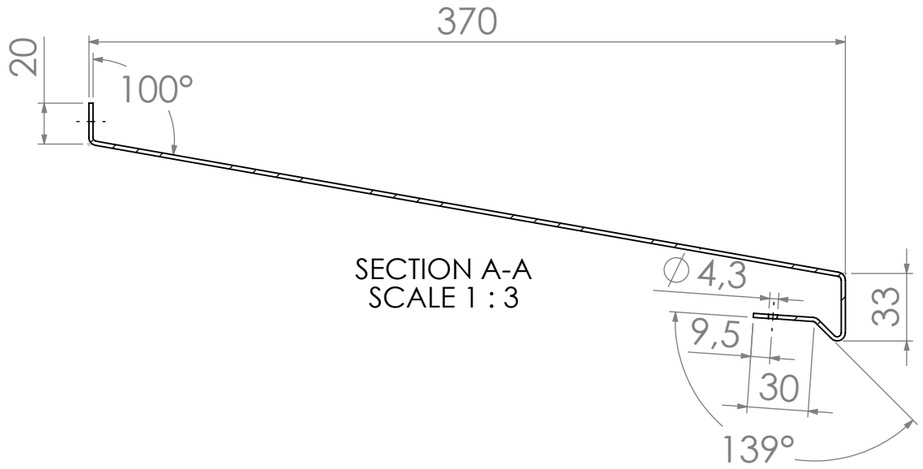
BYGHERRE:
Fælledby
–
–

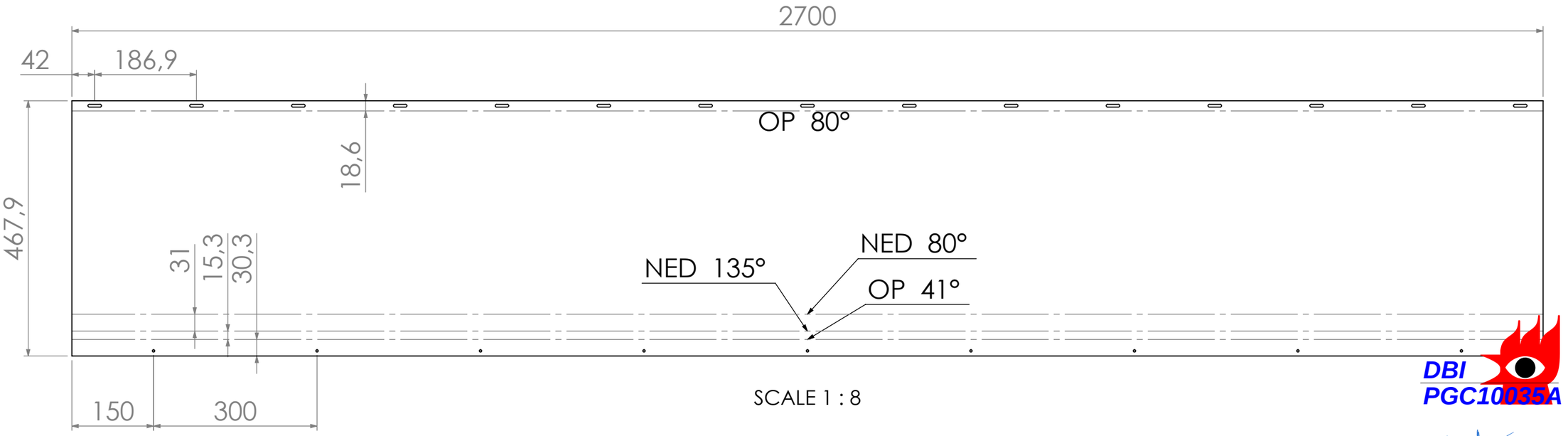
DATO: 2024-02-27 REV. NR/DATO: 2024-03-04
ANSV: CMA MÅL: 1:5 ANTAL: –
TEGN.NR: DE01

BM Byggeindustri Lupinvej 18 - 9500 Hobro - Tlf. +45 9852 1744

K:\031_Teknisk\02 Brand\Fælledby Brandtest\Mock-Up_BMB_2.dwg







DBI
PGC10035A

Mads Mak

OV: R1
UV: Spor 12-30°
BT: 0,5 mm

	NAME	DATE
DRAWN	casper	15-02-2024

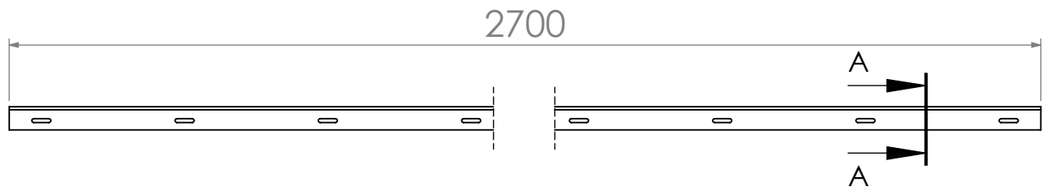
Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

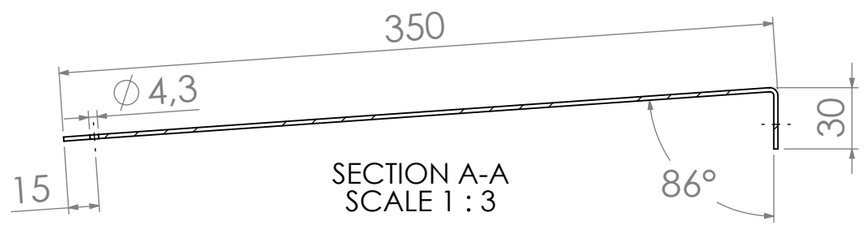
GLADSAXE KLIP & BUK

Folder name: X:\Facadeplan\BFUH-6\
Customer: Facadeplan
TITLE: Overdel, 2 mm plade

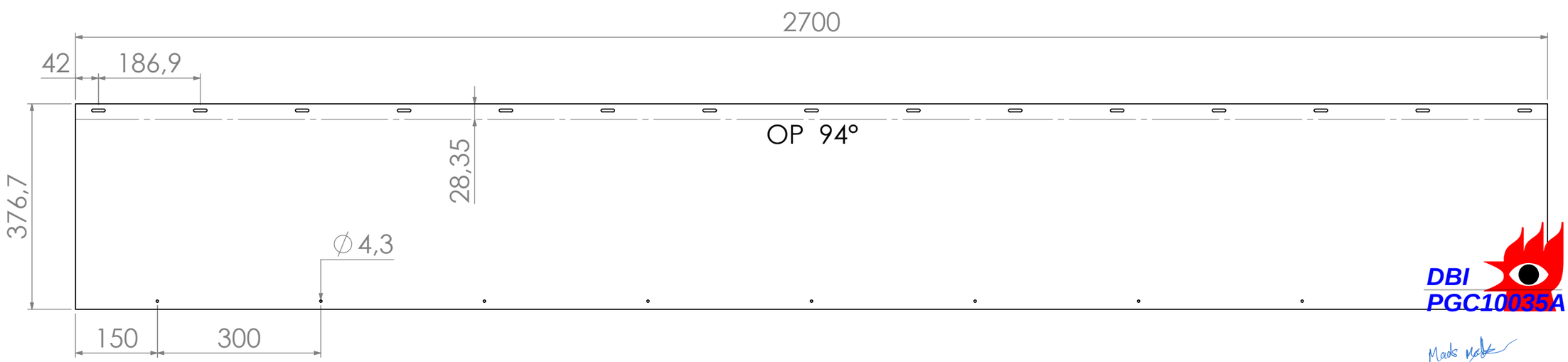
MATERIAL: 1.0330 (DC01 (SPO))
DWG NO. GKB-118818
REVISION

WEIGHT: 19711.70 | SCALE:1:5 | A3 | SHEET 1 OF 1





SECTION A-A
SCALE 1 : 3



DBI
PGC10035A

Mads Mdk

OV: R1
UV: Spor 12-30°
BT: 0,5 mm

	NAME	DATE
DRAWN	casper	15-02-2024

GLADSAXE KLIP & BUK

Folder name:
X:\Facadeplan\BFUH-6\

Customer:
Facadeplan

TITLE:
Underdel, 2 mm plade

Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

MATERIAL:
1.0330 (DC01 (SPO))

DWG NO.
GKB-118819

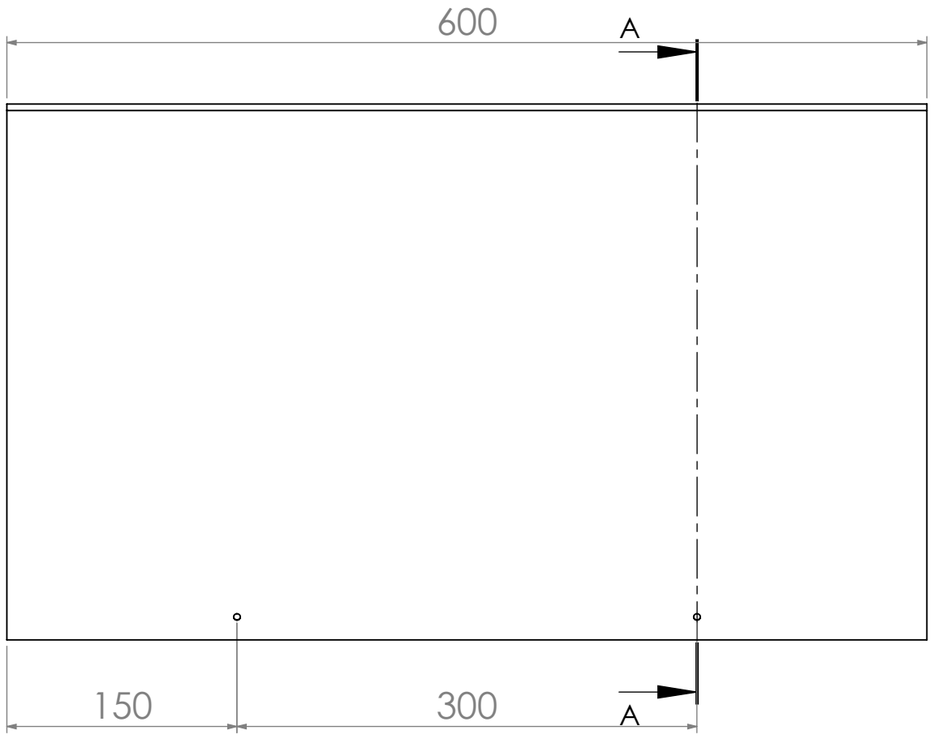
REVISION

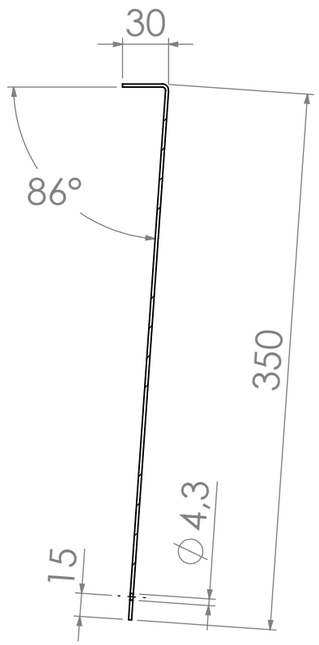
WEIGHT: 15846.56

SCALE:1:8

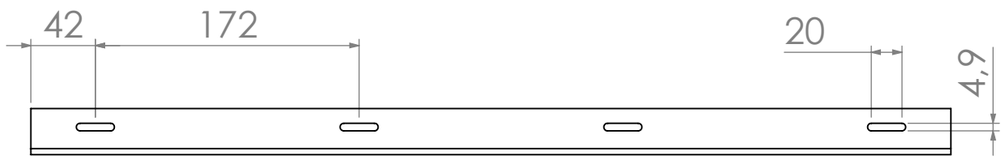
A3

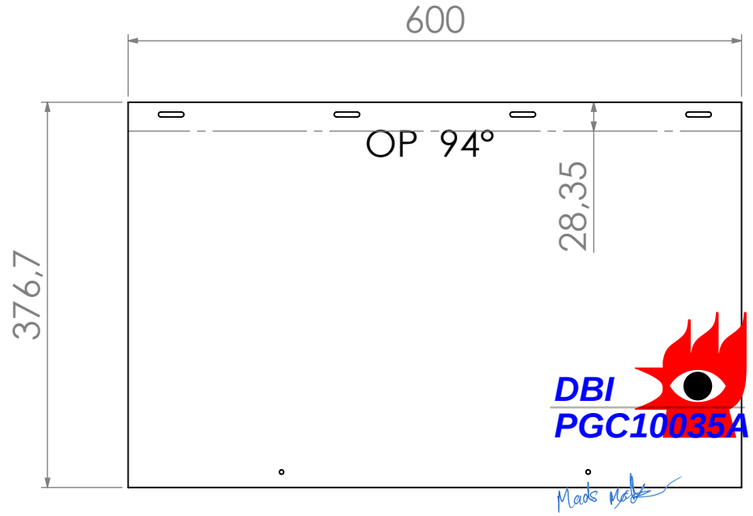
SHEET 1 OF 1





SECTION A-A





SCALE 1 : 6

OV: R1
UV: spor 12-30°
BT: 0,5 mm

	NAME	DATE
DRAWN	casper	02-11-2023

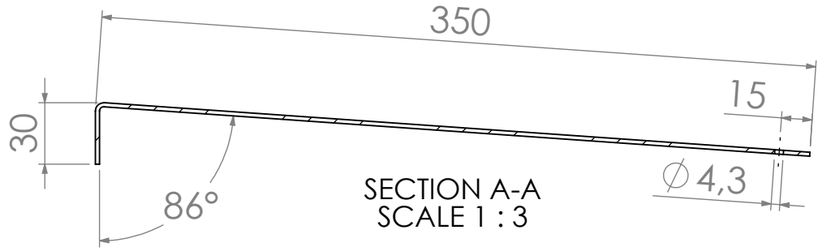
Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

GLADSAXE KLIP & BUK

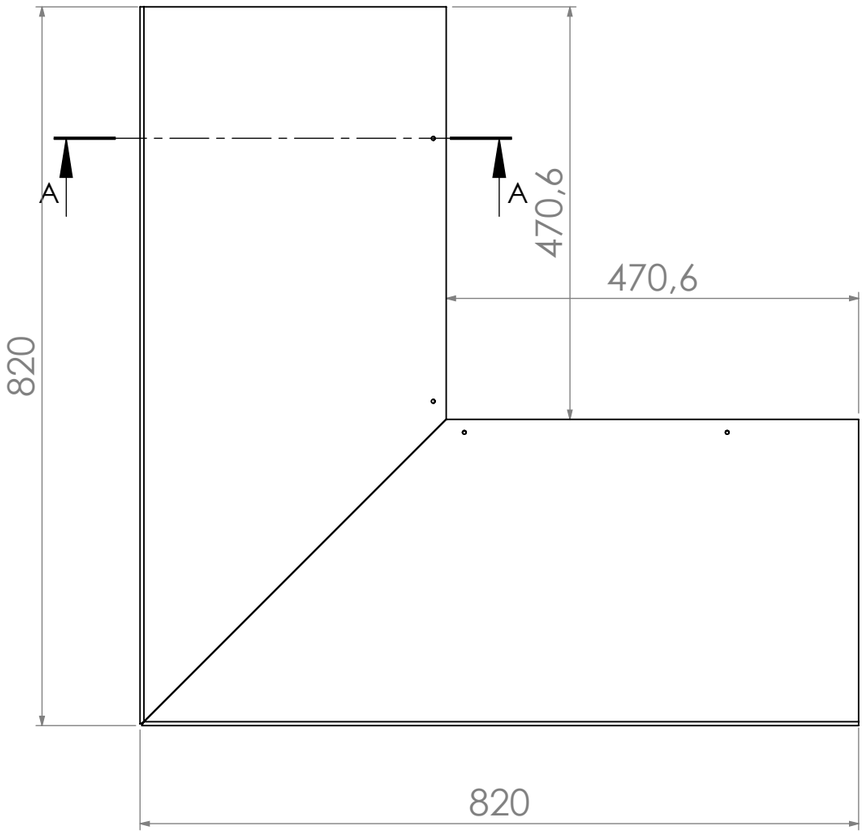
Folder name: X:\CPH Village Holding\
Customer:
TITLE: 2 mm plade

MATERIAL: 1.0330 (DC01 (SPO))
DWG NO. GKB-116645-1
REVISION

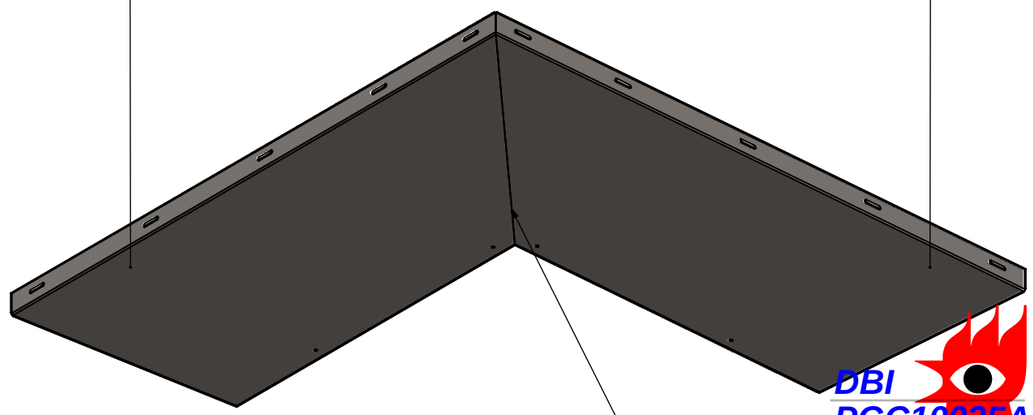
WEIGHT: 73.83
SCALE:1:4
A3
SHEET 1 OF 1



SECTION A-A
SCALE 1 : 3



GKB-116647-indv-10 GKB-116647-indv-20



Fuldsvejses
og slibes

	NAME	DATE
DRAWN	casper	13-10-2023

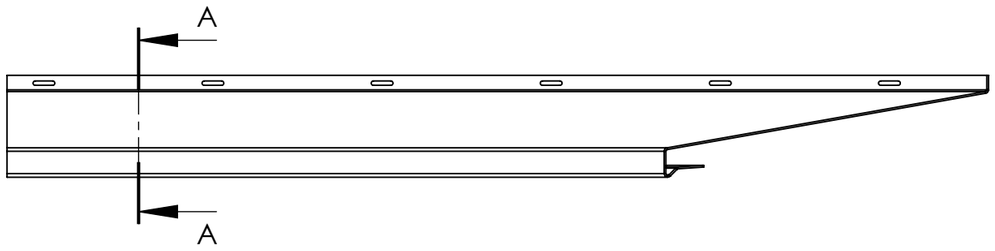
Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

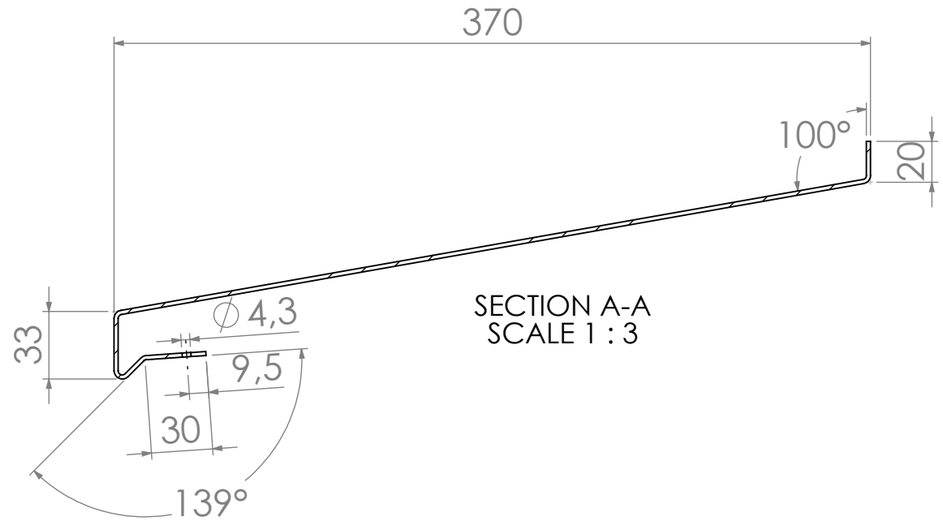
GLADSAXE KLIP & BUK

Folder name: X:\CPH Village Holding\
Customer: CPH Village
TITLE: Indv. Hj. Bund, 2 mm plade

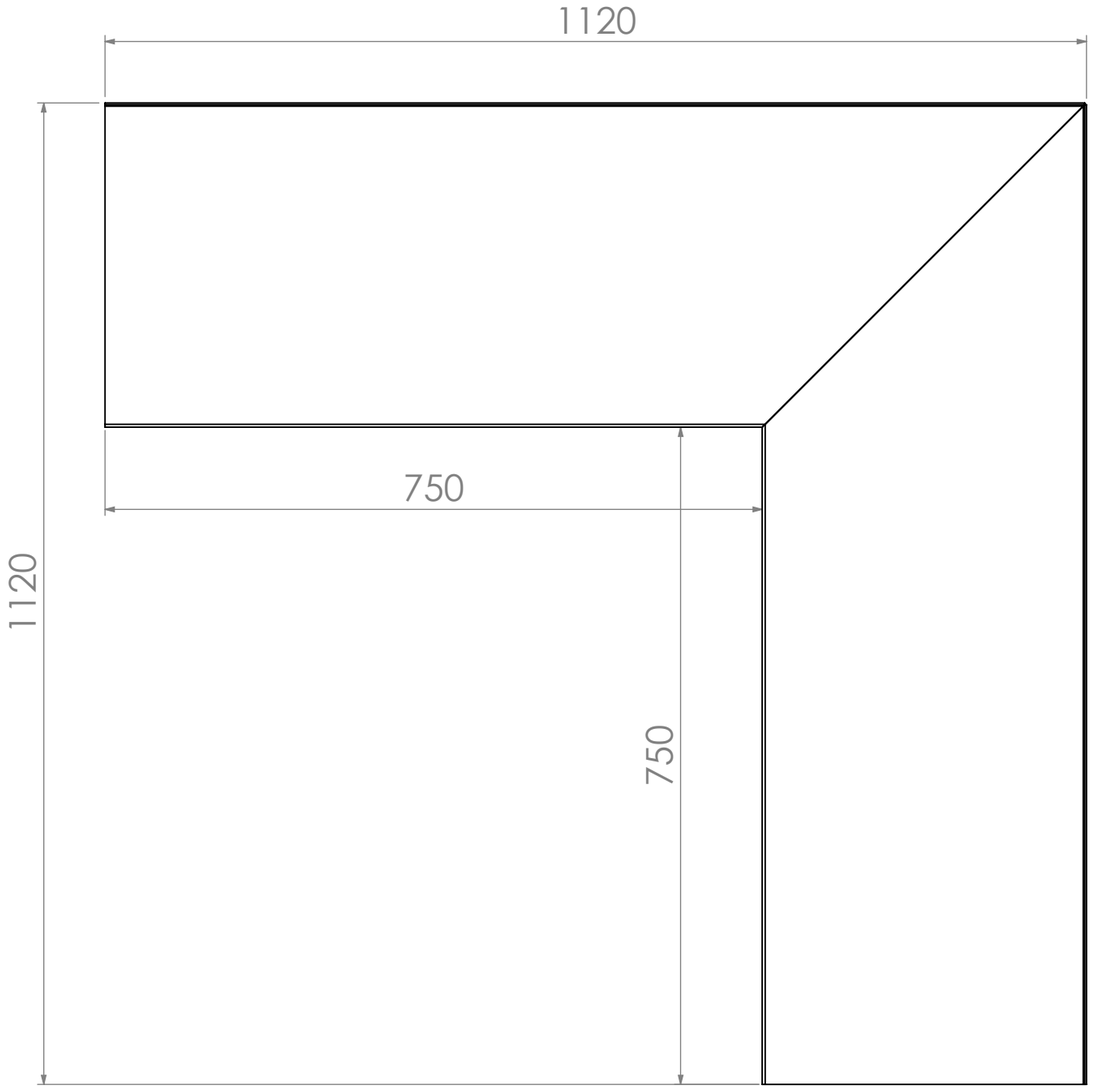
MATERIAL: 1.0330 (DC01 (SPO))
DWG NO. GKB-116647-indv
REVISION

WEIGHT: 7712.77 | SCALE:1:7 | A3 | SHEET 1 OF 2

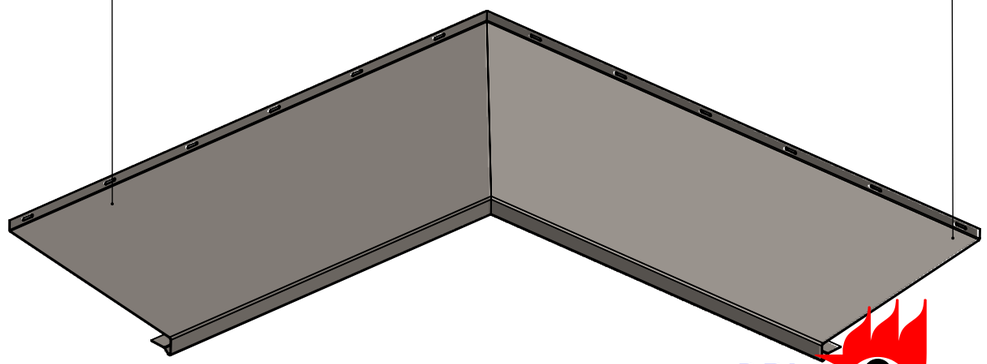




SECTION A-A
SCALE 1 : 3



GKB-116646-indv-10 GKB-116646-indv-20



DBI
PGC10035A

Mads Mølk

	NAME	DATE
DRAWN	casper	13-10-2023

Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

GLADSAXE KLIP & BUK

Folder name:
X:\CPH Village Holding\

Customer:
CPH Village

TITLE:
Indv. Hj. Top, 2 mm plade

MATERIAL:
1.0330 (DC01 (SPO))

DWG NO.
GKB-116646-indv

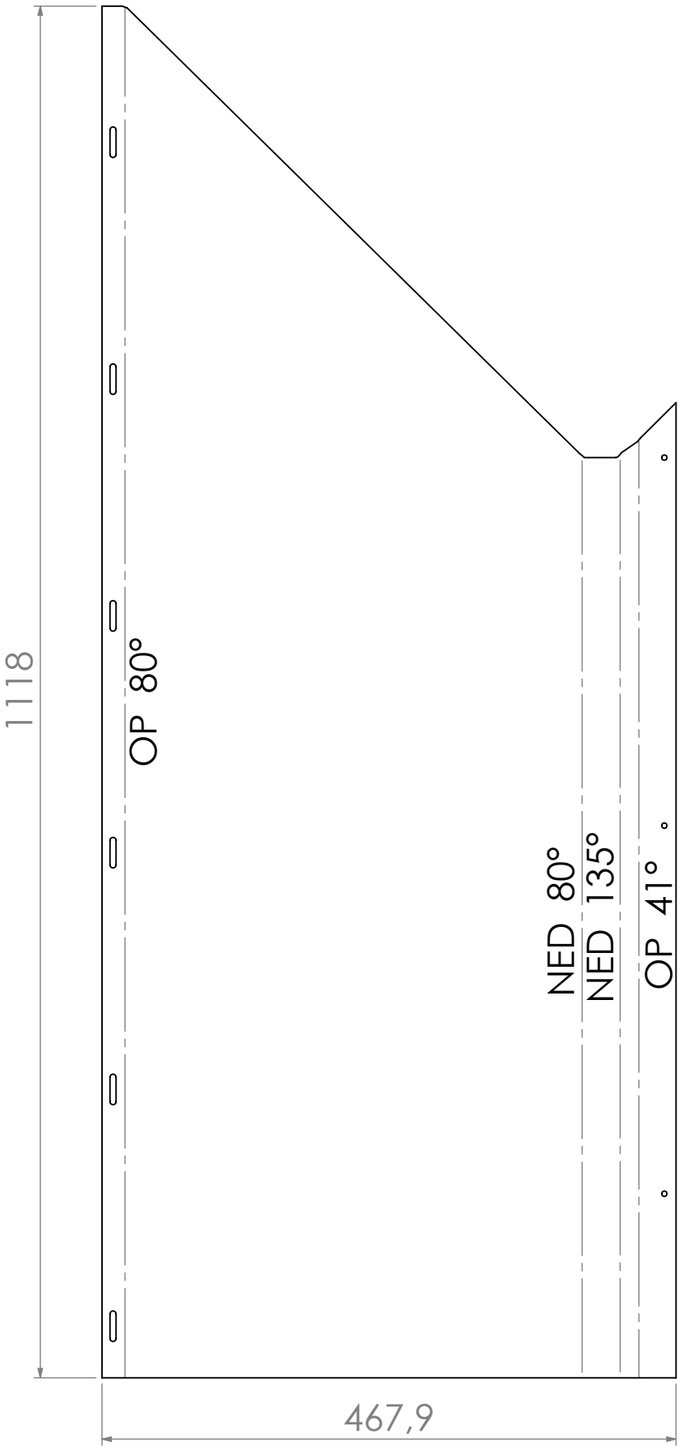
REVISION

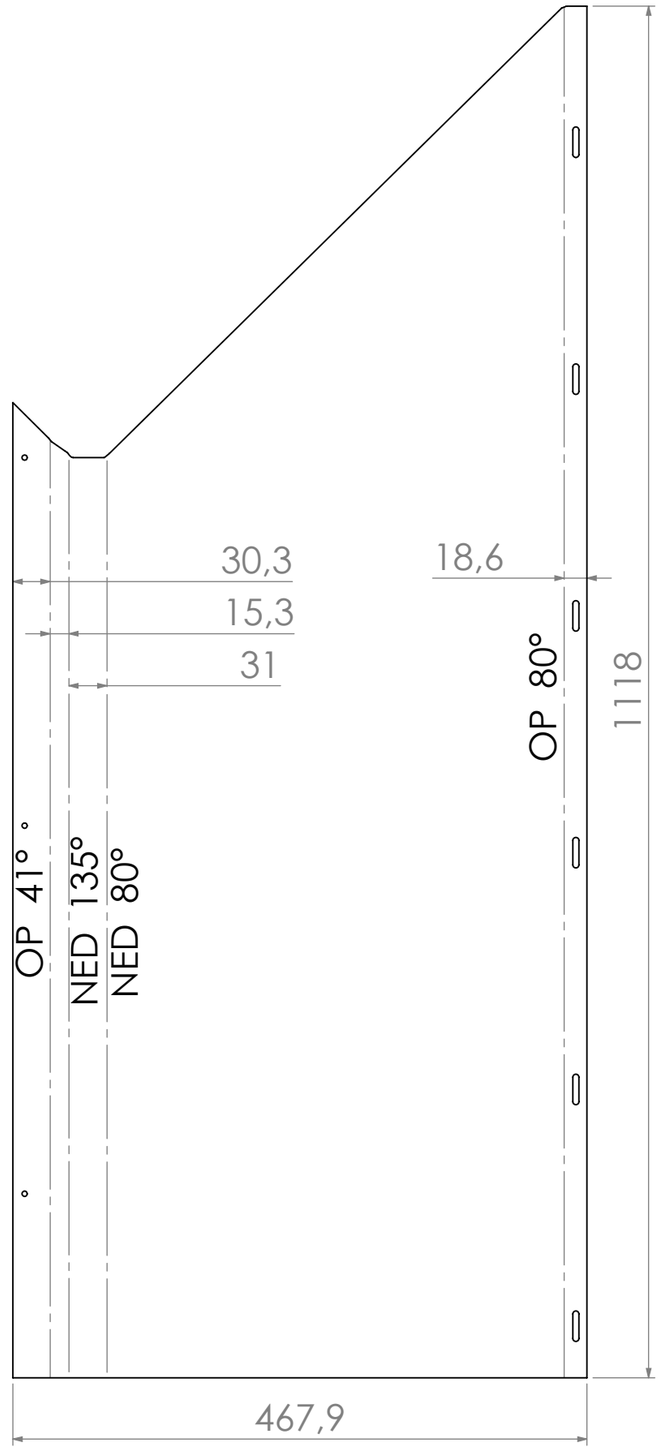
WEIGHT: 13341.41

SCALE:1:7

A3

SHEET 1 OF 2





DBI
PGC10035A

Mads Mølk

	NAME	DATE
DRAWN	casper	13-10-2023

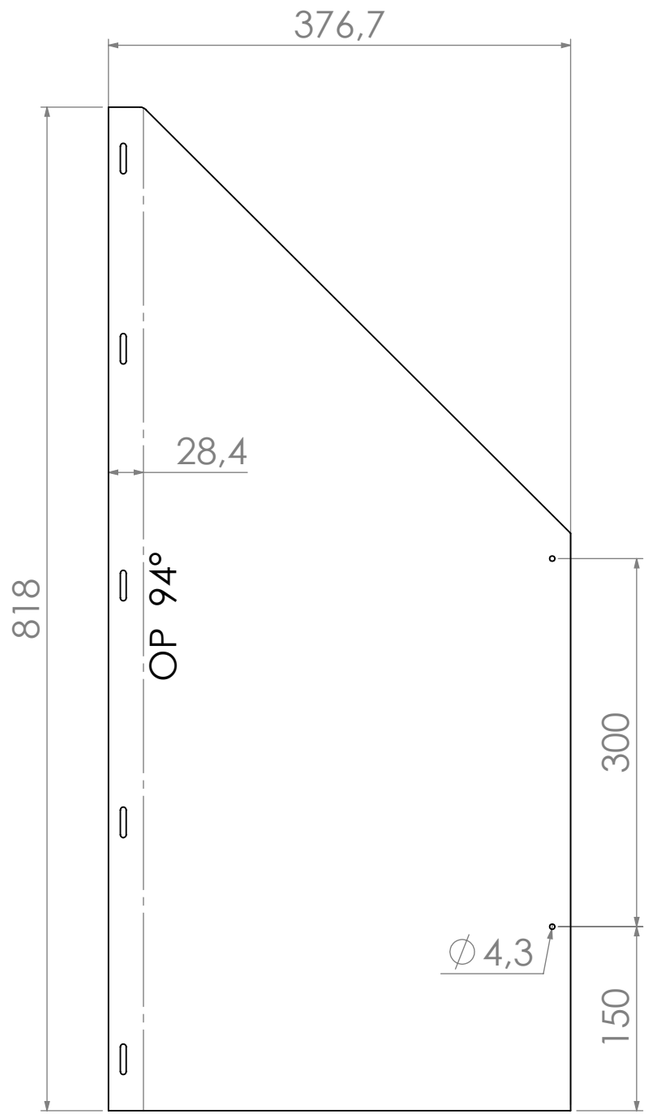
Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

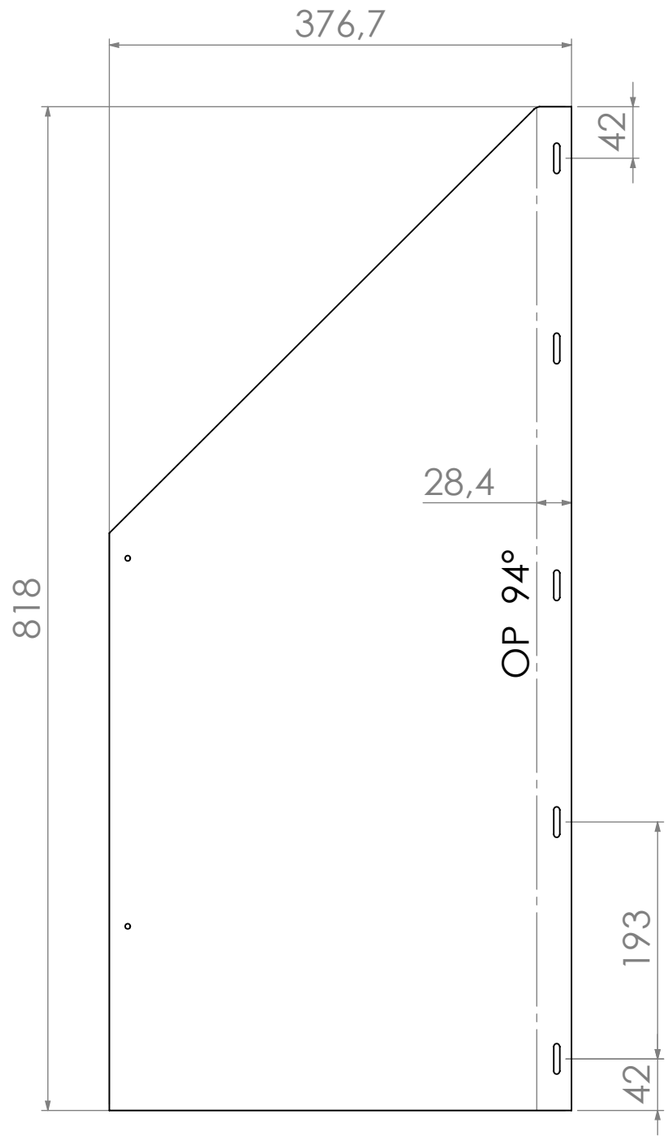
GLADSAXE KLIP & BUK

Folder name: X:\CPH Village Holding\
Customer: CPH Village
TITLE: Indv. Hj. Top, 2 mm plade

MATERIAL: 1.0330 (DC01 (SPO))
DWG NO. GKB-116646-indv
REVISION

WEIGHT: 13331.14
SCALE:1:7
A3
SHEET 2 OF 2





DBI
PGC10035A

Mads

OV: R1
UV: Spor 12-30°
BT: 0,5 mm

	NAME	DATE
DRAWN	casper	13-10-2023

Hvor intet andet er angivet, er tolerancer i henhold til DS/ISO 2768-1(m)
Alle mål er i millimeter, medmindre andet er angivet.
Tegningen må ikke skaleres.

GLADSAXE KLIP & BUK

Folder name: X:\CPH Village Holding\
Customer: CPH Village
TITLE: Indv. Hj. Bund, 2 mm plade

MATERIAL: 1.0330 (DC01 (SPO))
DWG NO. GKB-116647-indv
REVISION

WEIGHT: 7709.97
SCALE:1:5
A3
SHEET 2 OF 2