

TEST REPORT FAÇADE SP FIRE 105

Name of sponsor:	NSF III UN17 Holding 2 ApS		
Product name:	UN 17 Village - Facade		
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Client information

Client: NSF III UN17 Holding 2 ApS

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Date of test

The test was conducted on the 17-12-2021

Purpose of test

Examination of a façade cladding when exposed to fire.

The test specimen has been subjected to a fire test following the principles in the following standard:

SP FIRE 105, issue 5 – rev. 1994-09-09

The test setup has been adjusted from the standard to represent the facade more accurately in the specific building project.

The test was not performed accredited.

Test specimen

The trade name and sponsors identification mark is stated below:

Trade name:	None
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	Rev.	Subject
Drawing	UN17_K01-01_LE_H5_N02 (1/4)	14-12-2021	-	Brandtest 2- Plan, snit og opstalt
Drawing	UN17_K01-01_LE_H5_N02 (2/4)	14-12-2021	-	Opstalt
Drawing	UN17_K01-01_LE_H5_N02 (3/4)	14-12-2021	-	Brandtest, snit A-A
Drawing	UN17_K01-01_LE_H5_N02 (4/4)	14-12-2021	-	Brandtest, snit B-B
Drawing	UN17_K01-01_LE_H5_N03	14-12-2021	-	Lodret detalje af brandskørt
Drawing	UN17_K01-01_LE_H5_N04	14-12-2021	-	Lodret detalje af bund af vindue
Drawing	UN17_K01-01_LE_H5_N05	14-12-2021	-	Lodret detalje over vindue inkl. brandskørt
Drawing	UN17_K01-01_LE_H5_N07	14-12-2021	-	Vandret detalje af ydervæg og vindue
Drawing	UN17_K01-01_LE_H5_N08	14-12-2021	-	Vandret detalje af ydervæg og brystningsparti
Drawing	UN17_K01-01_LE_H5_N09	14-12-2021	-	Planer

The documentation is supplied by the sponsor and it is 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.

Test specimen

External measures: Height: 7080 mm Width: Façade 3800 mm Thickness: Wood panel 175 mm
Steel screens 4400 mm Steel screens

The test specimen consisted of a wood panel façade mounted on timber batten and stainless steel screens. The battens and steel screens was mounted on Cembrit Windbreaker boards that was covering a scantling construction with glass wool insulation.

The build-up of the façade system is shown on the attached drawings, supplied by the sponsor.

Inner layer: One layer of 2700 x 1200 x 9 mm limestone-/cement based fibreboards, designated Cembrit Windstopper extreme, with a nominal density of 1425 kg/m³. The boards had Cembrit 12 h-profiles in the horizontal joints and were mounted both horizontally and vertically on the supporting construction as seen in photo no. 3-4.

The boards were mounted to the scantlings with 2,5 x 50 mm full head nails of a c/c distance of approximately 180 mm. The scantlings had the dimension of 45 x 95 mm. The scantlings directly above the fire chamber was sealed to the light concrete wall with fire resisting sealant. Insulation between the scantlings consisted of ISOVER λ34 See photo no. 1-3.

Ventilated battens: Impregnated wood battens with the dimensions of 25 x 50 mm and was mounted in two layers with 2.6 x 63 mm nails. The inner layer was mounted vertically on top of the underlying scantlings, and the outer layer was mounted horizontally on top of the first layer. The vertical battens next to the window openings had double layers of vertical battens as seen in photo no. 5-6.

The battens between the window sill and floor consisted of horizontal perforated Z-profiles, 28 mm deep. The Z-profiles was mounted with 4.8 x 60 mm screws designated RedHorse CORONA RXB.

Cladding: The cladding consisted of a vertical wood panel, designated Moelven Thermowood profil 581. The cladding below each window was mounted to the Z-profiles with one 4,5 x 41 mm façade screw designated NKT FAÇADE+ for each horizontal profile.
The rest of the cladding was nailed with 2.5 x 65 mm nails to the horizontal battens.

Window fittings/flashings: Galvanized steel profiles with 150 x 35 mm galvanized steel profile, thickness 0.7 mm, was used for the window eave and vertical edges. The top and bottom steel profiles had a vertical distance of 12 mm from the cladding and were protruding 30 mm from the cladding above and 52 mm from the cladding below.

The steel profiles, in the vertical edges of the windows had a horizontal distance of 6 mm from the cladding and protruding 30 mm from the cladding.

The vertical steel profiles was prolonged after the Cembrit boards was mounted, from the window down to the horizontal fire screen below.

The steel profiles was nailed using 2.5 x 50 nails with a c/c distance of approximately 280 mm.

The fire chamber had an profile on the top, mounted in the same way as the profiles above.

Horizontal fire screens	Eaves consisting of horizontal fire screens mounted according to drawings. Each screen consisted of a top and bottom profile that was bolted together with 4.0 x 8.0 mm rivets. The joints of the bottom profiles were offset from the windows, while the joints of the top profile was placed in the centrum of the windows. The fire screens was mounted to the inner layer with 4.8 x 60 mm screws with washer, in 20 mm wide oval holes. The screws had a c/c distance of approximately 200 mm was designated Red Horse CORONA RXB.
Fire stops	The shortest distance to the cladding above and under the fire screens was 12 mm. Fire stops designated FB Firebreather was mounted in the cavity between the Cembrit boards and the cladding, positioned as in drawing UN17_K01-01_LE_H5_N02 (2/4). The fire stops was mounted on horizontal wooden planks with 4.8 x 29 mm screws designated Red Horse ETX MH RX5. The wooden planks was 120 mm wide and mounted to the scantlings with 2.8 x 63 mm nails.

Measured by DBI

Product		Windstopper	Thermowood	Battens	λ34
Density	kg/m ³	-	-	-	20,9
Moisture content	%	5.7	6.4	16.3	0,7
Organic content	%	-	-	-	4,3
Sampling method		Extra material	Extra material	Extra material	Extra material
Drying temperature	°C	105	105	105	105

Test conditions

Conditioning

The test specimen was delivered between the 29-11-2021 and the 03-12-2021 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.

Mounting

The test specimen was mounted on the SP FIRE 105 test rig and had a size of 4400(3800) x 7100 mm (W (without fire screens) x H).

The surface of the SP FIRE 105 test rig was built with 150 mm aerated concrete blocks, with a nominal density of 575 kg/m³.

Fire test

The setup for the fire test was modified in relation to the description in SP FIRE 105, issue 5. – rev. 1994-09-09.

The modifications consisted of:

- Window size 1400 x 1300 mm (W X H).
- Vertical distance between windows were 1830 mm.
- Total height of test specimen is 7100 mm.
- Top eave consists of a horizontal fire screen protruding 200 mm.
- When the heptane burned out the fire in the façade was not extinguished.

The fire test starts when the fire source is ignited. The fire source consisted of 60 litres of heptane, which is placed in a metal tray with a flame suppressor on top of it.

Observations were made during the test on the general behaviour of the test specimen. Temperature observations were taken continually during the entire testing time.

Schematic view of the condition of the test specimen after the fire test are indicated on DBI drawing no. 1.0.

Additional thermocouples were placed on the façade as indicated on DBI drawings no. 1.1.

The temperature was determined by two wire thermocouples placed in the eave(Brandskørt). The heat flux was measured with a heat flux sensor, centred in the lowest window, according to the SP FIRE 105, issue 5. – rev. 1994-09-09. An additional heat flux sensor was placed in the upper window as requested by the sponsor.

Test results

Duration of the test was 57 minutes.

Measurements

The enclosed graphs and tables show:

Enclosures 2.0 and 2.1	Temperatures under the eave Eave.1 is placed 100 mm from the facade, Eave.2 is placed 400 mm from the facade.
Enclosures 3.0 and 3.1	Heat radiation measured in the centre of the lower fictitious window The heat radiation is displayed as an rolling average of 30 seconds
Enclosures 4.0 and 4.1	Ambient temperature The ambient temperature in the laboratory during the test
Enclosures 5.0 and 5.1	The temperature in the fire chamber during the test The temperatures are measured with furnace plate thermocouples
Enclosures 6.0 and 6.1	The temperature in the ventilated air gap in the top floor The temperatures are measured with wire thermocouples
Enclosures 7.0 and 7.1	The temperature in the ventilated air gap in the two lowest floors The temperatures are measured with wire thermocouples
Enclosures 8.0 and 8.1	The temperature on the front and in the windows The temperatures are measured with wire thermocouples

Visual observations:

Time / Visual observations:

Minutes

0	Test commences
6	Some dark smoke from chamber
7	Flames outside of chamber
8	Flames at 2 nd fire screen
8	Glow on top of 2 nd floor below fire screen
10	Flames only below first fire screen
11	Horizontal flame spread below 1 st fire screen to the right
11	Flames from first window
12	Flame spread fully horizontal below 1 st fire screen
13	Flame spread fully right side below 2nd fire screen
14	Deflected vertical steel profiles in 1 st window (S-shaped)
15	Deflecting fire screen, of approx. 1.5 m width in the centre of 2 nd fire screen
16	Glowing pieces falls (< 5 cm)
18	Glowing pieces falls (< 30 cm)
19	Glowing piece (> 30 cm) falls from wall under first fire screen
20	Heptane flame stops (heptane fully consumed)
21	More pieces fall < 30 cm
23	More pieces fall < 30 cm
38	Flames below 2 nd fire screen increased
38	One larger piece falls < 50 cm
40	One plank approx. 50 cm falls
57	Extinguishing begins

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.

Observations after the test:

Lots of charring and glow beneath 2nd fire screen
Some charring between the 2nd fire screen and 2nd window
No charring of timber outside the 2nd windows vertical steel profiles

Conclusion

Fire resistance testing according to SP FIRE 105, issue 5 – rev. 1994-09-09, 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:

Failure criteria:	Minute:
▪ The fire spread in the test specimen did not reach further up than the lower part of the window in the second storey.	▪ No failure
▪ Large pieces did not fall down during the test.	▪ No failure
▪ The temperatures measured at the eave did not exceed 500 °C for more than two minutes or 450 °C for more than 10 minutes. The maximum temperature reached was 362°C.	▪ No failure
▪ The heat flux, measured in the centre of the window in the second storey above the combustion chamber, exceeded 80 kW/m ² . The maximum heat flux measured was 97 kW/m ² .	▪ From 12-18 minutes

Remarks

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 SP FIRE 105, issue 5 – rev. 1994-09-09. Any significant deviation with respect to size, constructional details, edge or end conditions other than those allowed under the field of application in the test method is not covered by this report.

Because of the nature of fire resistance testing and the consequent difficulty in quantifying the uncertainty of measurement of fire resistance, it is not possible to provide a stated degree of accuracy of the result.

This report has only been printed in a pdf-version. DBI has not issued a hard copy version.

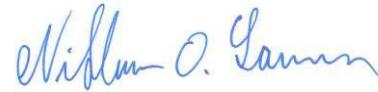
All values mentioned in this report are nominal values, production tolerances are not considered.

The test was not performed accredited.

Danish Institute of Fire and Security Technology



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NSF III UN17 Holding 2 ApS

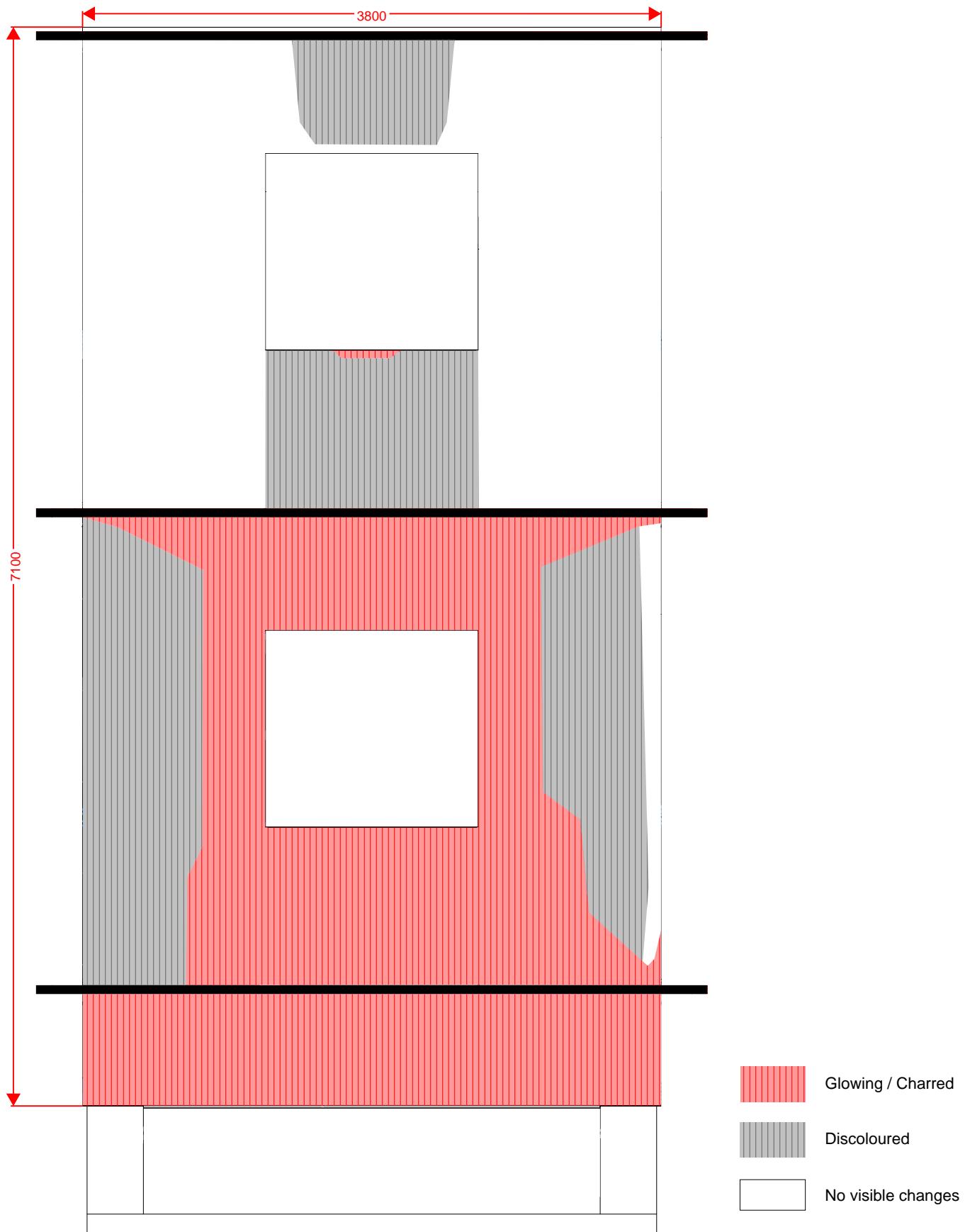
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2150 Nordhavn
Denmark

Enclosures:

38

DBI drawings:	2
DBI graphs and tables:	14
Photo sheets:	12
Sponsors drawings:	10

Facade when all heptane was consumed



All measurements are in mm

Dansk Brand- og sikringsteknisk Institut

Sponsor: NSF III UN17 Holding 2 ApS

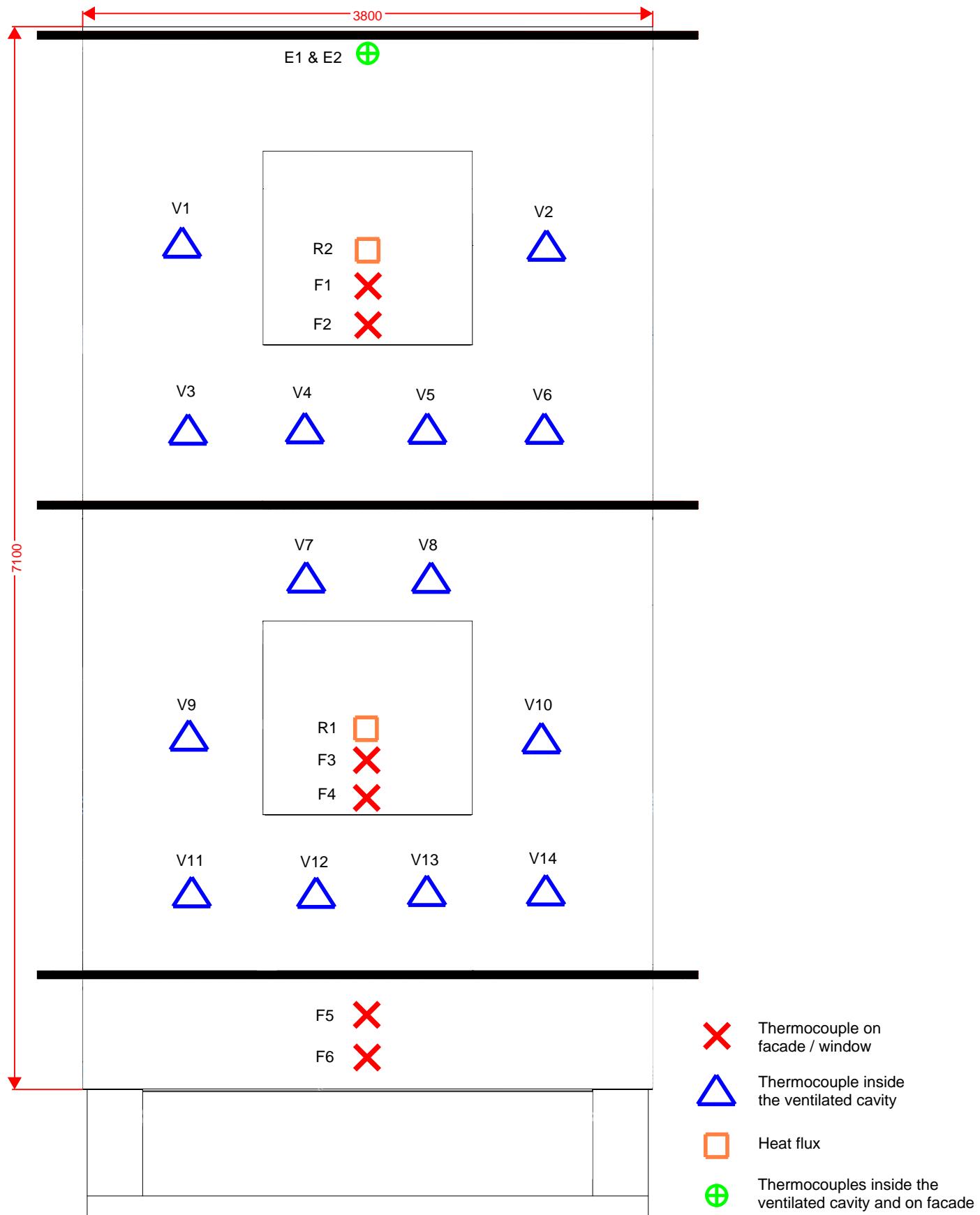
Subject: UN 17 Village - Facade

File No.: PGC10009B

Test Date: 17-12-2021

Enclosure: 1.0

Placement of measuring devices



All measurements are in mm

Dansk Brand- og sikringsteknisk Institut

Sponsor: NSF III UN17 Holding 2 ApS

Subject: UN 17 Village - Facade

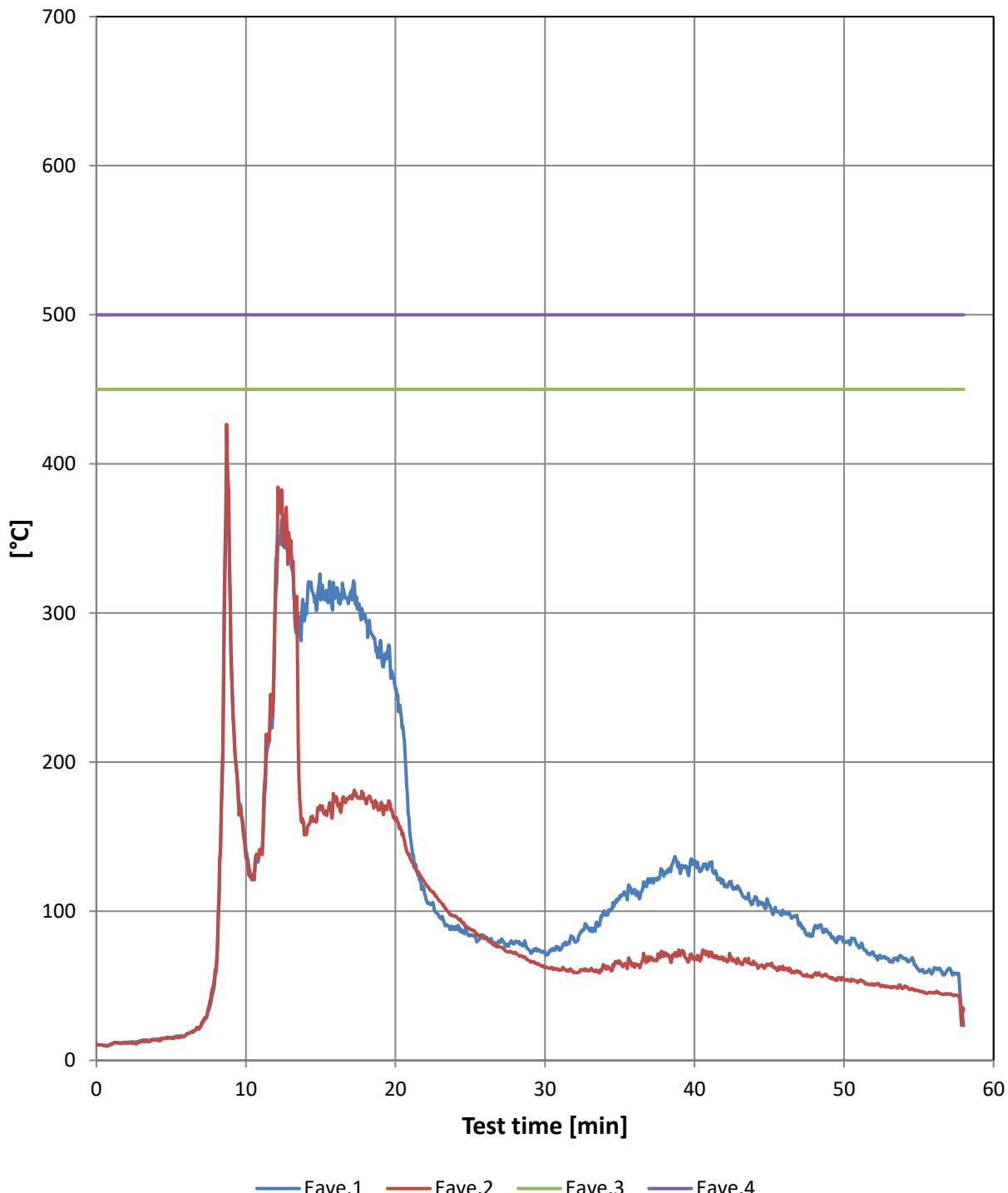
File No.: PGC10009B

Test Date: 17-12-2021

Enclosure: 1.1

Temperatures under the eave

Eave.1 is placed 100 mm from the facade, Eave.2 is placed 400 mm from the facade.



Eave.1/2 was not over 450 °C

Temperatures under the eave

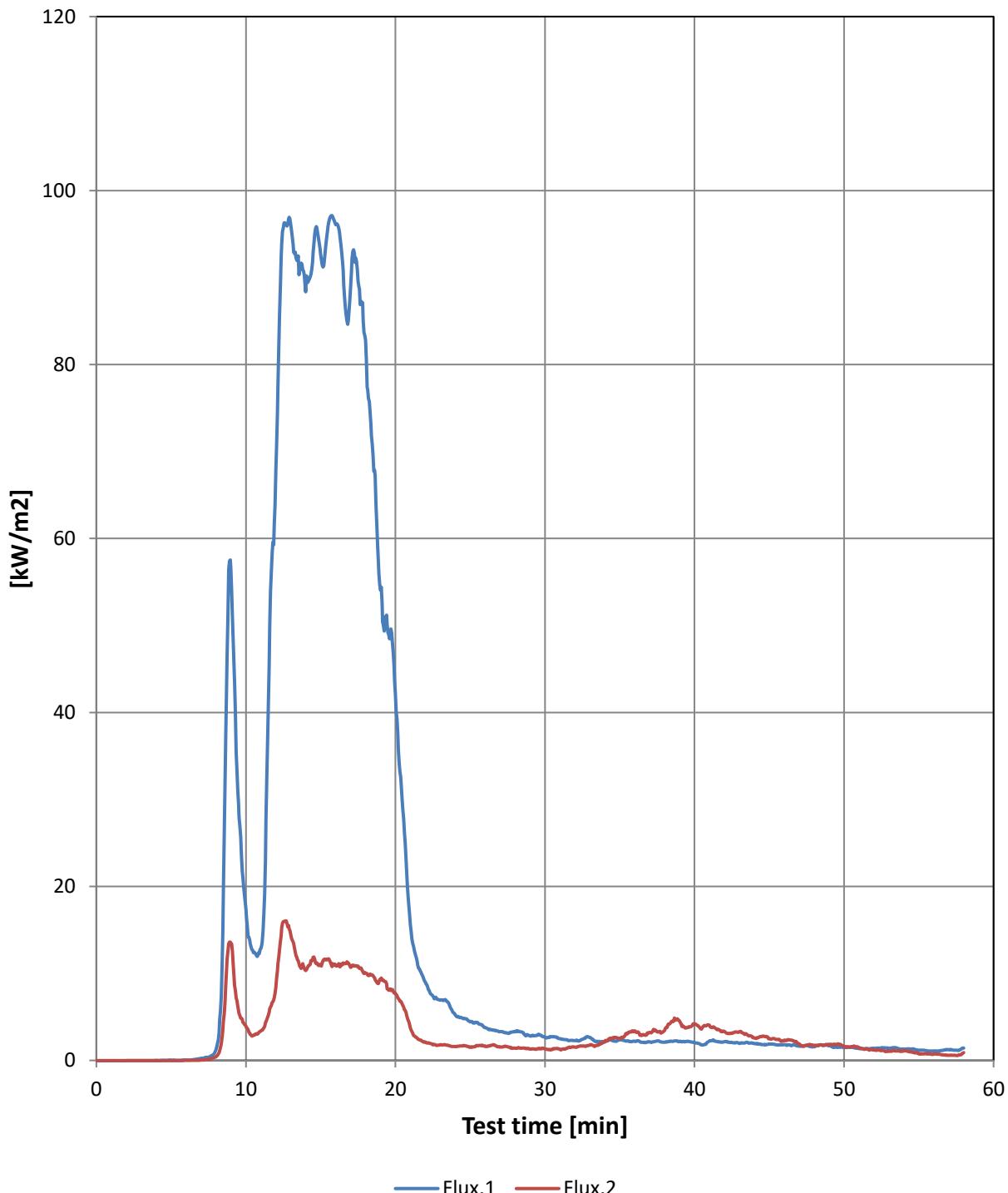
Eave.1 is placed 100 mm from the facade, Eave.2 is placed 400 mm from the facade.

Min. / °C	Eave.1	Eave.2	Eave.3	Eave.4
0	11	11	450	500
2	12	11	450	500
4	14	14	450	500
6	17	17	450	500
8	59	61	450	500
10	140	135	450	500
12	313	334	450	500
14	306	152	450	500
15	309	168	450	500
16	311	174	450	500
18	297	175	450	500
20	249	161	450	500
22	110	118	450	500
24	90	97	450	500
26	82	81	450	500
28	79	72	450	500
30	73	62	450	500
32	79	59	450	500
34	98	63	450	500
36	115	62	450	500
38	126	72	450	500
40	134	69	450	500
42	116	68	450	500
44	108	64	450	500
46	99	61	450	500
48	89	58	450	500
50	79	54	450	500
52	71	51	450	500
54	68	49	450	500
56	62	46	450	500
58	23	34	450	500

Eave.1/2 was not over 450 °C

Heat radiation measured in the center of the lower fictitious window

The heat radiation is displayed as an rolling average of 30 seconds



Flux is measured in the center of the lower fictitious window(Flux.1) and in the top window(Flux.2)

Heat radiation measured in the center of the lower fictitious window

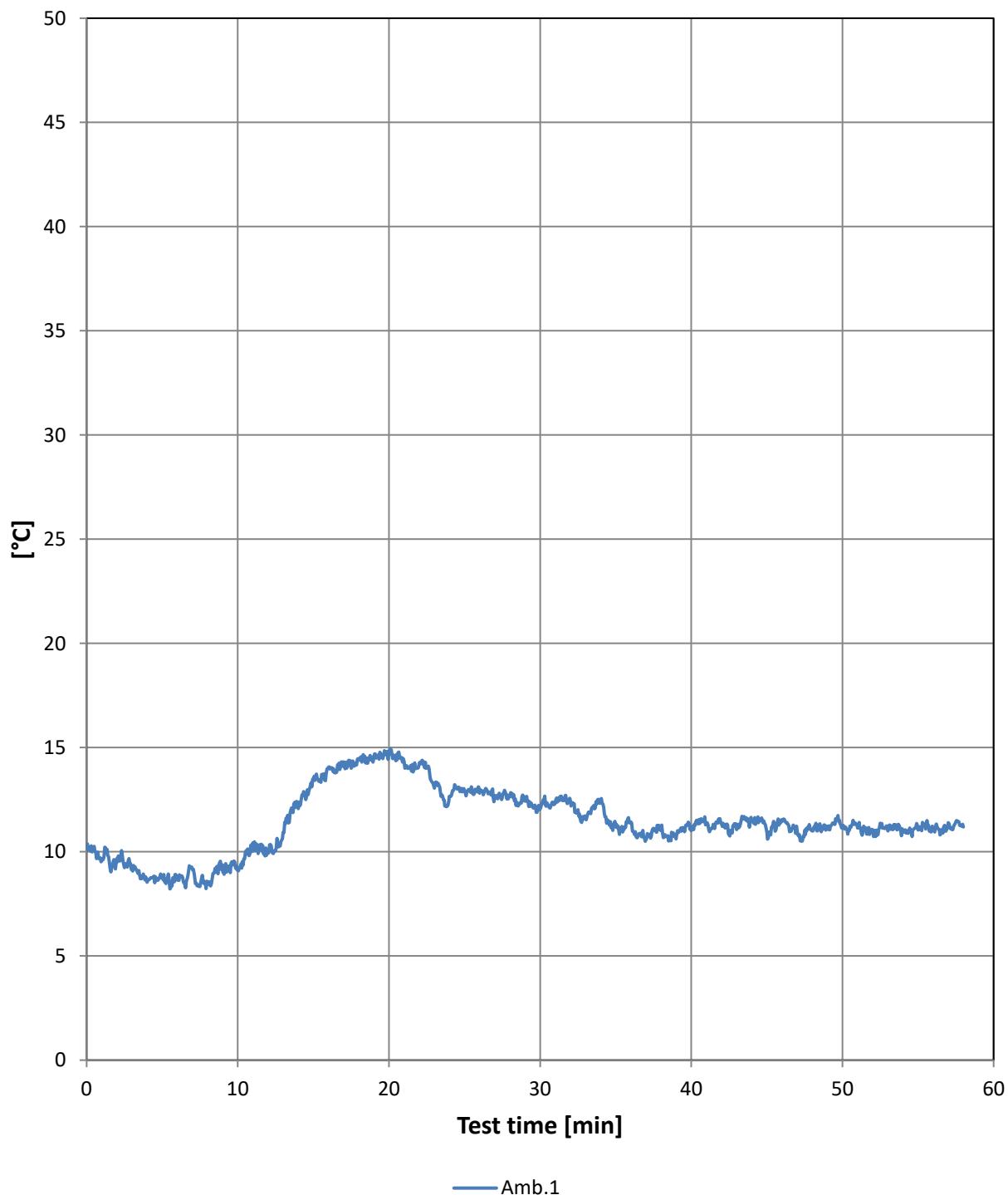
The heat radiation is displayed as an rolling average of 30 seconds

Min. / kW/m ²	Flux.1	Flux.2
0	0	0
2	0	0
4	0	0
6	0	0
8	1	0
10	17	4
12	68	8
14	88	10
15	93	11
16	96	11
18	83	10
20	42	8
22	9	2
24	5	2
26	4	2
28	3	1
30	3	1
32	2	2
34	2	2
36	2	3
38	2	3
40	2	4
42	2	3
44	2	3
46	2	2
48	2	2
50	1	2
52	1	1
54	1	1
56	1	1
58	1	1

Flux is measured in the center of the lower fictitious window(Flux.1) and in the top window(Flux.2)

Ambient temperature

The ambient temperature in the laboratory during the test



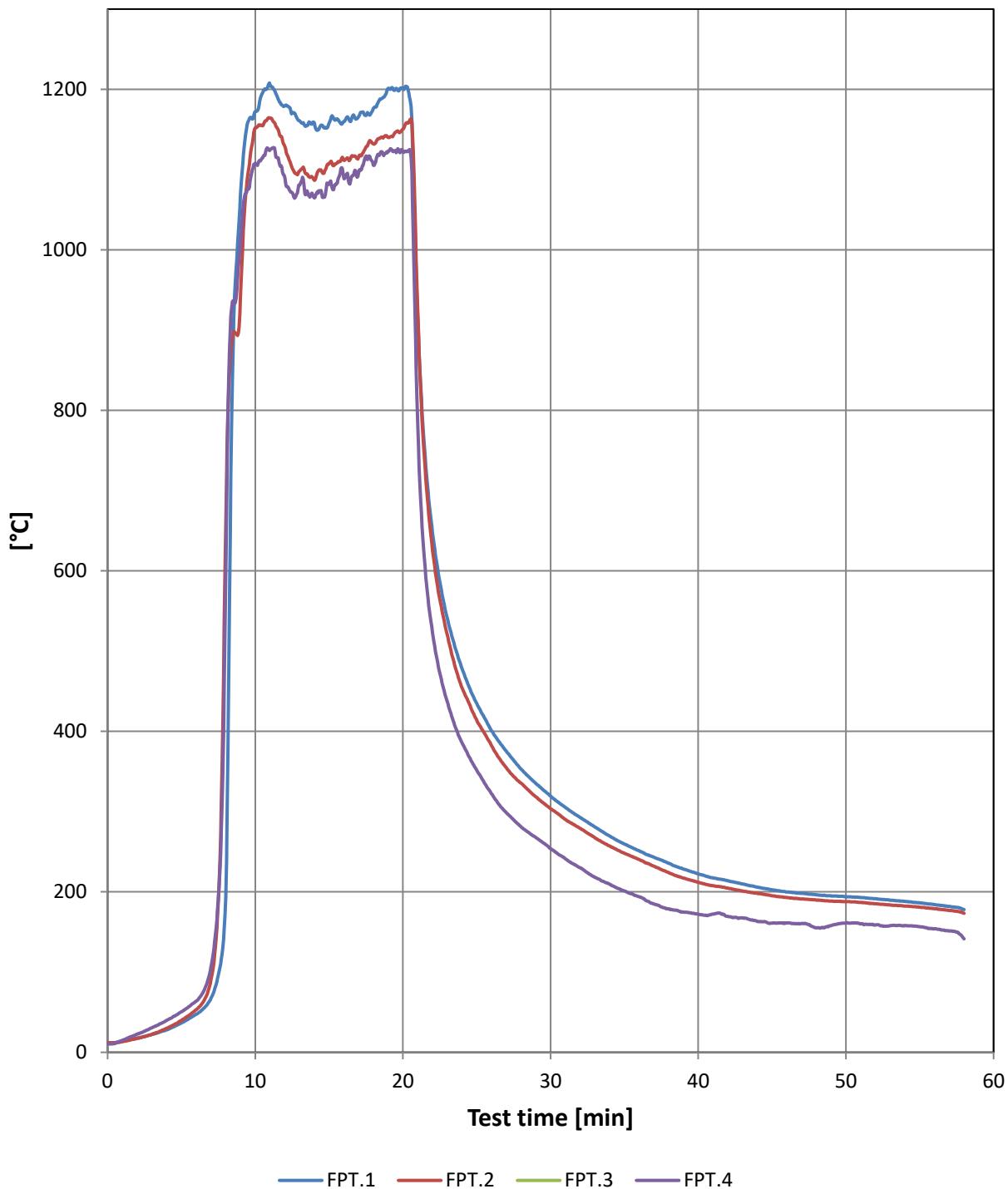
Ambient temperature

The ambient temperature in the laboratory during the test

Min. / °C	Amb.1
0	10
2	10
4	9
6	9
8	8
10	9
12	10
14	12
15	13
16	14
18	14
20	15
22	14
24	13
26	13
28	13
30	12
32	12
34	12
36	11
38	11
40	11
42	11
44	11
46	11
48	11
50	11
52	11
54	11
56	11
58	11

The temperature in the fire chamber during the test

The temperatures are measured with furnace plate thermocouples



FPT.3 malfunctioned before the test

The temperature in the fire chamber during the test

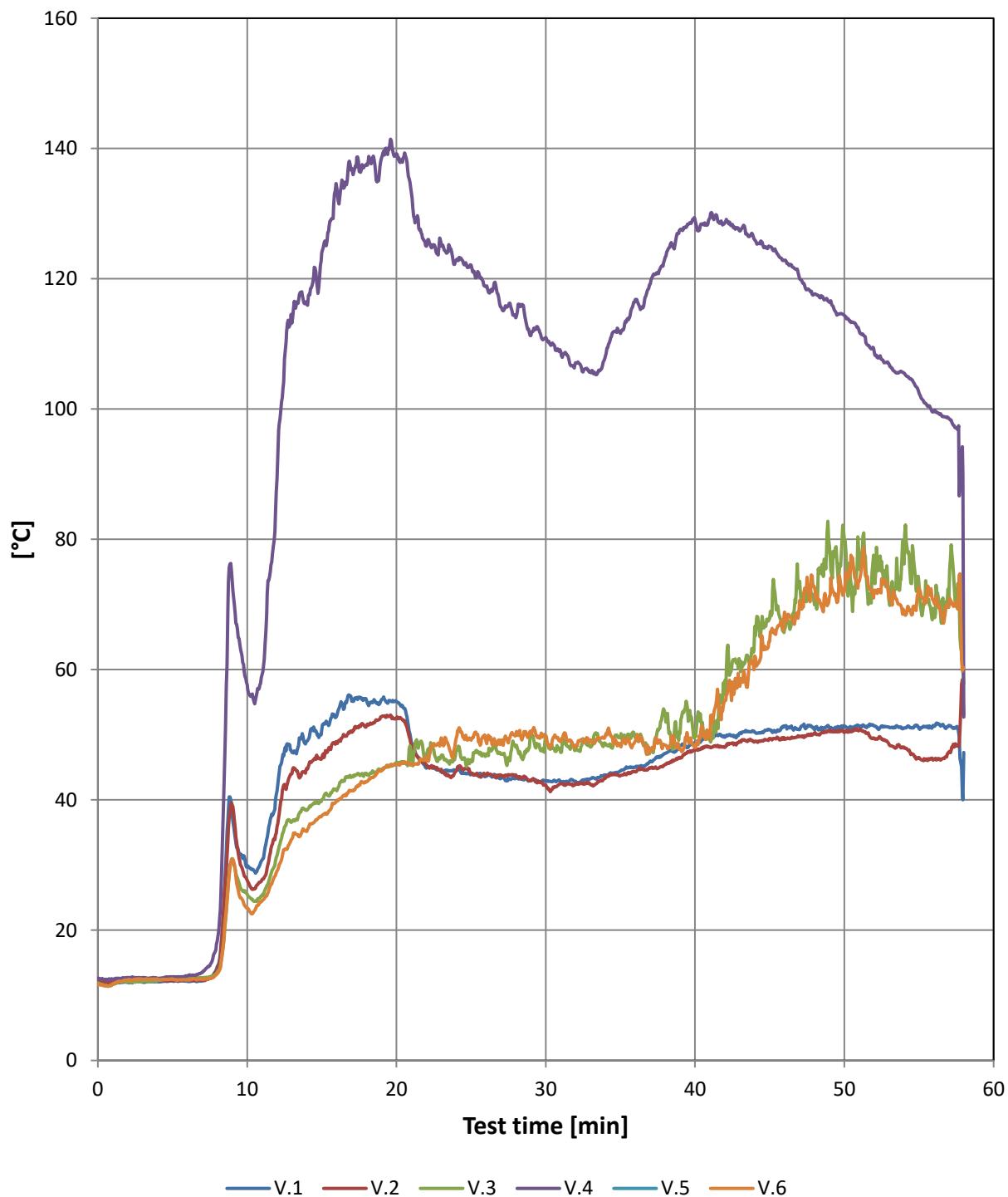
The temperatures are measured with furnace plate thermocouples

Min. / °C	FPT.1	FPT.2	FPT.3	FPT.4
0	12	12	0	11
2	18	17	0	23
4	28	30	0	40
6	47	53	0	64
8	193	655	0	596
10	1172	1152	0	1108
12	1179	1129	0	1090
14	1158	1087	0	1065
15	1158	1107	0	1082
16	1160	1111	0	1088
18	1176	1132	0	1106
20	1201	1150	0	1122
22	648	626	0	524
24	478	454	0	386
26	401	382	0	322
28	353	335	0	281
30	319	304	0	254
32	293	279	0	230
34	269	257	0	209
36	251	240	0	194
38	236	224	0	179
40	223	212	0	172
42	214	205	0	169
44	206	198	0	163
46	200	193	0	161
48	196	190	0	155
50	194	188	0	161
52	192	185	0	159
54	188	182	0	158
56	184	179	0	154
58	178	173	0	141

FPT.3 malfunctioned before the test

The temperature in the ventilated air gap in the top floor

The temperatures are measured with wire thermocouples



V.5 malfunctioned before the test

The temperature in the ventilated air gap in the top floor

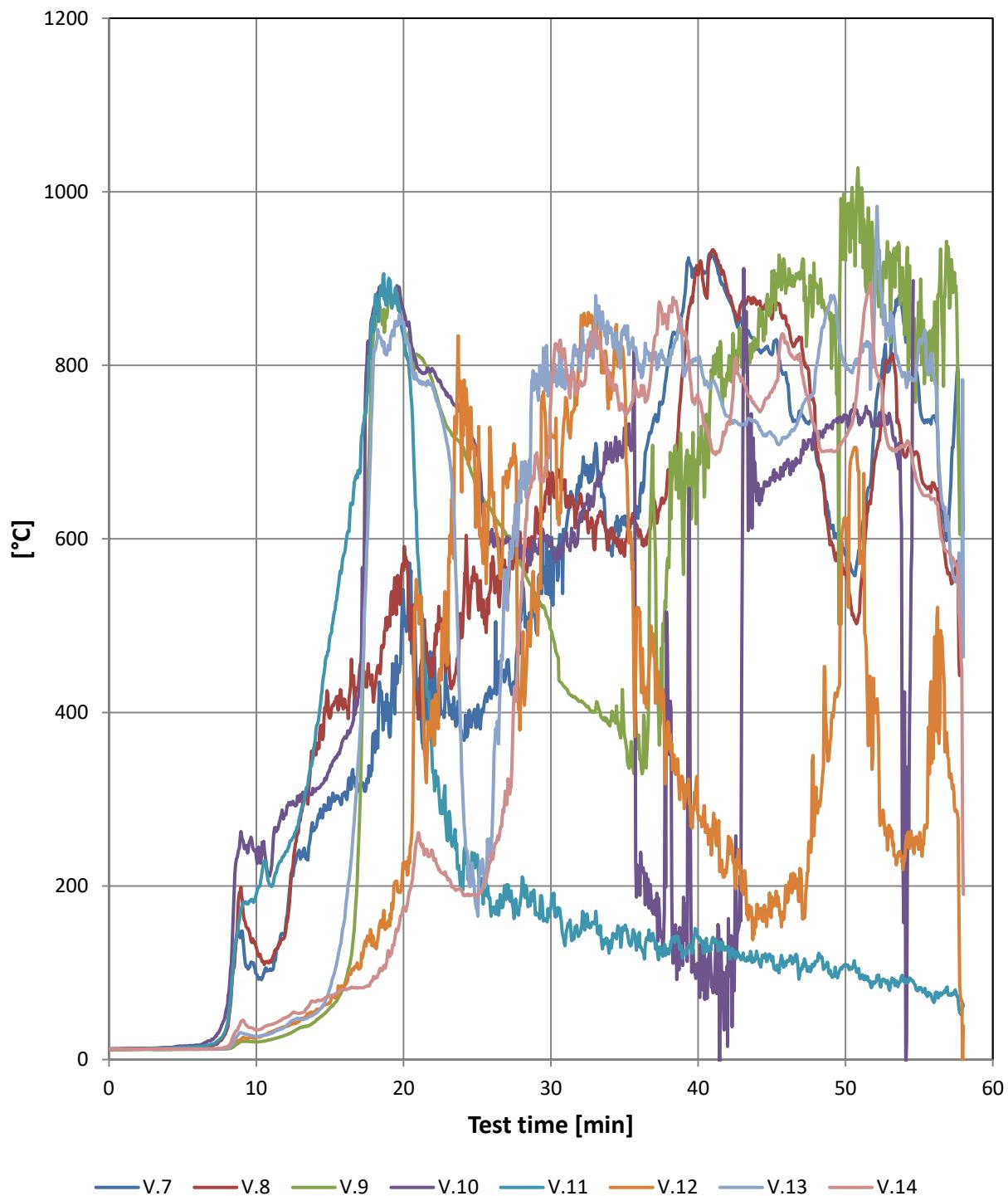
The temperatures are measured with wire thermocouples

Min. / °C	V.1	V.2	V.3	V.4	V.5	V.6
0	12	12	12	13	0	12
2	12	12	12	13	0	12
4	12	12	12	13	0	12
6	12	12	13	13	0	12
8	14	14	14	18	0	13
10	30	28	26	58	0	23
12	41	36	31	89	0	29
14	49	45	38	116	0	35
15	51	46	40	124	0	38
16	53	49	41	134	0	40
18	55	51	44	138	0	43
20	55	52	46	139	0	45
22	45	45	47	125	0	46
24	45	44	48	123	0	49
26	44	44	47	119	0	49
28	43	44	48	114	0	50
30	43	42	50	111	0	50
32	43	42	48	107	0	48
34	44	43	49	108	0	50
36	45	44	50	117	0	49
38	47	45	53	123	0	48
40	49	48	50	129	0	48
42	50	48	58	129	0	55
44	50	49	67	126	0	62
46	51	50	66	123	0	69
48	51	50	70	118	0	73
50	51	50	80	114	0	72
52	51	49	76	109	0	72
54	51	48	76	105	0	69
56	51	46	69	100	0	70
58	47	53	58	53	0	60

V.5 malfunctioned before the test

The temperature in the ventilated air gap in the two lowest floors

The temperatures are measured with wire thermocouples



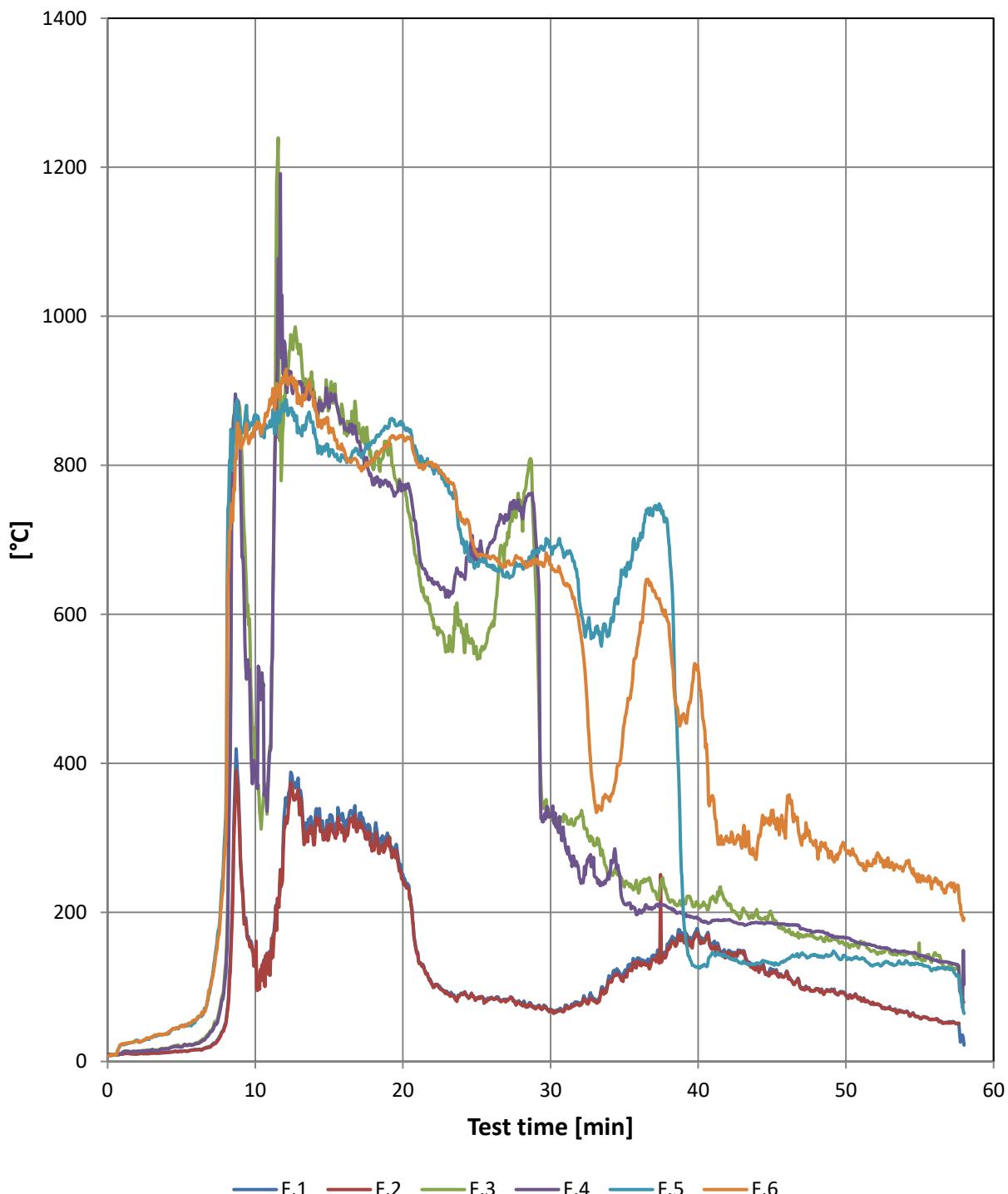
The temperature in the ventilated air gap in the two lowest floors

The temperatures are measured with wire thermocouples

Min. / °C	V.7	V.8	V.9	V.10	V.11	V.12	V.13	V.14
0	12	12	11	11	12	11	12	12
2	12	13	12	13	12	12	12	12
4	13	13	12	14	13	12	12	12
6	14	14	12	17	15	12	12	12
8	35	35	12	60	40	13	13	15
10	98	129	20	233	191	25	27	34
12	156	149	28	282	240	38	38	49
14	267	366	44	309	370	55	53	67
15	288	393	59	335	488	65	82	73
16	309	415	86	372	585	85	162	81
18	355	419	844	867	849	131	819	94
20	531	564	840	864	834	220	850	176
22	440	446	778	794	330	379	773	236
24	371	491	707	755	195	751	314	193
26	425	567	632	611	172	653	258	235
28	521	583	569	589	192	430	688	532
30	531	667	495	594	174	721	790	763
32	660	652	413	630	145	822	793	782
34	591	605	384	699	136	792	837	777
36	631	606	358	222	146	511	793	764
38	810	673	567	396	122	382	805	863
40	914	904	699	97	140	282	806	761
42	878	886	782	15	130	233	742	733
44	819	870	824	653	122	179	734	751
46	784	847	891	684	112	182	717	826
48	696	706	894	723	113	314	798	725
50	581	560	921	740	110	622	803	717
52	741	692	928	731	89	407	891	802
54	844	695	835	424	91	229	792	706
56	742	664	830	0	66	414	786	646
58	611	476	0	0	61	39	464	190

The temperature on the front and in the windows

The temperatures are measured with wire thermocouples



The temperature on the front and in the windows

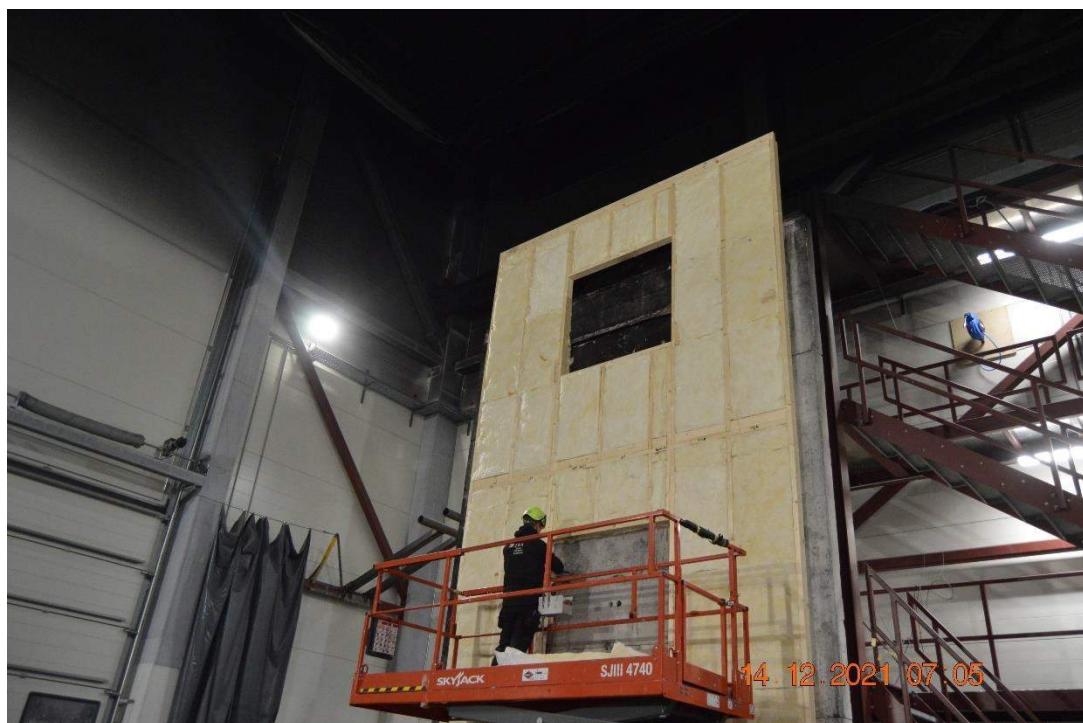
The temperatures are measured with wire thermocouples

Min. / °C	F.1	F.2	F.3	F.4	F.5	F.6
0	9	10	8	9	8	8
2	10	10	14	14	28	27
4	12	12	18	17	37	36
6	16	16	25	24	56	57
8	52	50	131	118	331	297
10	128	135	391	382	869	854
12	340	314	888	963	885	924
14	306	291	899	890	849	888
15	321	303	876	877	812	843
16	317	303	853	856	811	821
18	300	287	794	775	831	808
20	251	243	770	774	857	840
22	104	102	593	642	794	797
24	92	90	575	651	695	724
26	86	86	587	697	663	677
28	79	76	744	740	667	676
30	70	69	337	332	691	667
32	78	75	331	245	611	577
34	112	107	256	251	580	349
36	139	133	228	204	702	572
38	157	150	217	206	696	587
40	173	168	211	192	126	525
42	146	146	210	190	140	300
44	132	129	201	187	132	288
46	122	120	175	183	137	341
48	98	98	165	175	142	287
50	88	88	157	166	140	283
52	77	77	147	155	130	266
54	67	66	144	148	134	264
56	57	56	146	136	125	244
58	22	0	80	103	64	192



13.12.2021 16:10

Photo No. 1 Scantlings mounted to the light concrete wall with L-angles



14.12.2021 07:05

Photo No. 2 Glass wool insulation before mounting of Cembrit boards



Photo No. 3 Cembrit boards during mounting



Photo No. 4 Cembrit boards and steel profiles around windows mounted



Photo No. 5 Battens, fire stop and horizontal fire screens during mounting



Photo No. 6 Overview of test specimen before mounting of cladding begins



Photo No. 7 Cladding being mounted



Photo No. 8 First fire screen with insulated edge of the wall



Photo No. 9 Test commences



Photo No. 10 Test specimen after 7 minutes of testing



Photo No. 11 Glow below 2nd fire screen after 9 minutes of testing



Photo No. 12 Vertical flame spread out to wall edge below 2nd fire screen after 13 minutes of testing



Photo No. 13 Small debris starts falling after 18 minutes of testing



Photo No. 14 The last heptane is being used up after 20 minutes of testing



Photo No. 15 Test specimen approximately 10 minutes after the heptane burned out.



Photo No. 16 Test specimen approximately 14 minutes after the heptane burned out.



Photo No. 17 Test specimen approximately 19 minutes after the heptane burned out.



Photo No. 18 Test specimen approximately 25 minutes after the heptane burned out.



Photo No. 19 Test specimen approximately 30 minutes after the heptane burned out.



Photo No. 20 Extinguishing of test specimen starts after 57 minutes of testing



Photo No. 21 Top window after test frame been placed on the floor for examination



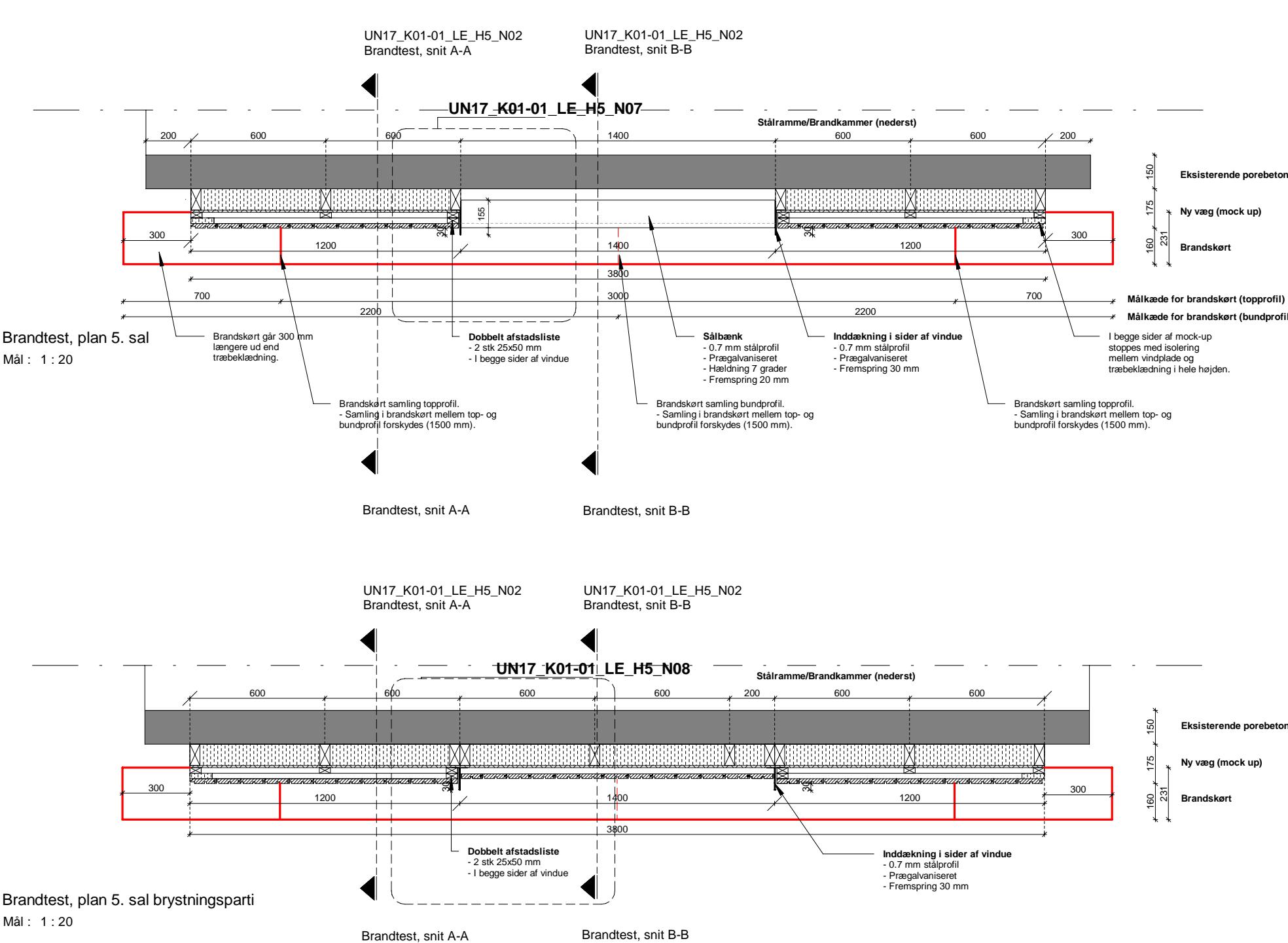
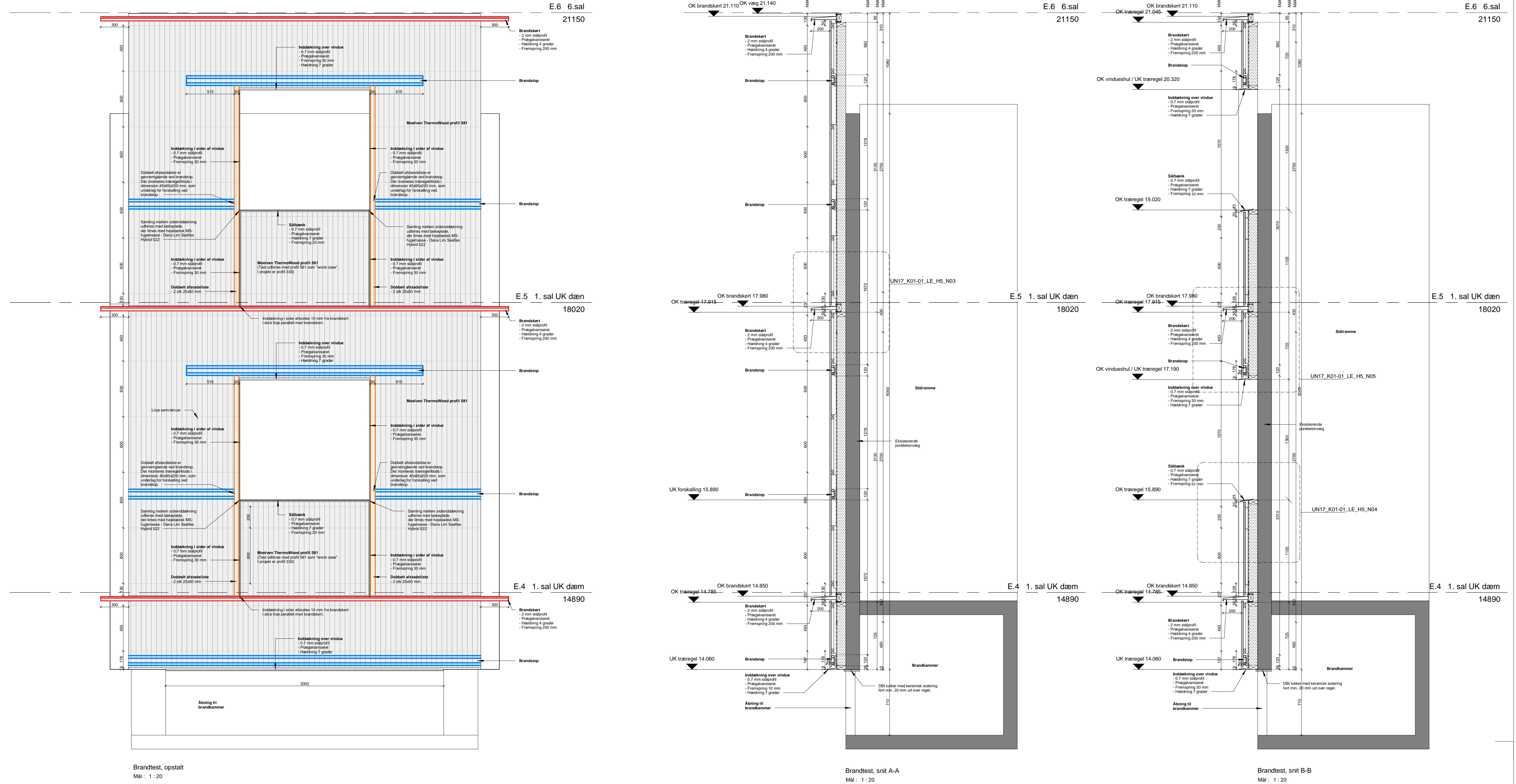
Photo No. 22 Timber on the right side of top window



Photo No. 23 Timber on the left side of top window



Photo No. 24 Timber with charring below the top window



Brandstop:
FB Hulumsventil 28 mm, EI30 (23x1130x105 mm).
Hulumsventilen fastgøres med 3 rustne skruer pr. 1130 mm. Rustfrie skruer - RedHorse ETX MH RX5, 4,8 x 29 mm TX20.
Fastgørelsen rettes ned fra den ene ende, med på ca 40 mm fra den anden. Ventilen skal være monteret i ventilen. Skræbelet skal være monteret fra den ene ende, med på ca 40 mm fra den anden. Ventilen hulumsventilen og rengøringskamnen skal være mindre end 2 mm.
Tiskrænk af tængten skal udføres med en vinkelskærem for at undgå at frakrænken aktiverer gaffindæksaget.
Skærbæltet skal være af rustfrit stål.
Det er vigtigt at hulumsventilen har en fast overflade på begge sider, så gaffren har noget til at ekspandere ud mod i tilfælde af brand.
Monteringsfladen kan være af massiv træ, træpanel, gips eller beton.

Aflutningskanal:
Ud mod brandstædet med stenund (eller keramik ud). Stenunden giver samtidig et lekkesikrhed ved tilpassingen af FB Hulumsventilen. Hulumsventilen skal nå helt fra neden til regel for at optimere brandmodstandsværdien. Dette er stunden med til at sikre.
Montage i levrigt iht. leverandørens anvisninger.

Brandkort:
Brandkort udført med 2 mm stålprofil med 4 grader hældning på overside.
Fastgøres pr. max. 200 mm med 3 skruer pr. 1130 mm. Rustfrie skruer - RedHorse CORONA™ RXB 4,8 x 60 #1 TX20 EPDM-S-GB. Top- og bundprofilen skal fastgøres med RT Popcote Geeps (nr. 143629) 4,0x6,0 mm, A2. Sanling i brandkort mellem top- og bundprofil forsøvdes jf. tegning.
Langsprofilen skal være min. 20 mm aflæng, skruer placeres i midten af aflæng hul ved montage, så udskæringen kan ske.
Skruerne skal sikres for hånd fast.

Traeklædning:
Traeklædning som Moelven ThermoWood profil 581, 21x118 mm, uden nogen materialehandtering af fabrik. Et helt identisk produkt kan anvendes, hvis det er varmetbedrevet ovenfra med en mindste densitet 420 kg/m³. Det skal være varmemodtagende og have en maks. udvidelse under opvarmning omkring 215 µm. Elgenet produktet har en mere større geometrisk overflade (eksponeret overflade) eller volumen (brandbelastning) end Moelven ThermoWood profil 581. Hæveling og mekanisk overfladebehandling af træde og baggrunden skal være identisk med Moelven ThermoWood profil 581.

Væg:
Væg udført med 2 mm stålprofil med 4 grader hældning og sanlingsmed材 med max. 600 mm afdale.
Profiltænkene fastgøres med Rovinex 2000 med 2,5x6,0 mm, A2. Sanling i væggen mellem top- og bundprofilen.
OBS! Ved skrumønstre skal der forbruges 3 profillænke under for at undgå at listan flækker.
Afstandslængde på fastgørelse = Profiltænkets tykkelse + værdet underlig tykkelse = min. længde på fastgørelse (21+25=46 mm).

OBS:
Sanling skal ske ved hjælp af en skruemønster, så de ikke flyder ud.
OBS! Samt skruhovedet må max. lande på profilbrettedets overflade og ikke gå under niveau. Dette er vigtigt for at undgå at profilbrettedet flækker.
Ved opvarmning skal der være en mindste udvidelse på 0,1% af længden. Profiltænkene udføres med afstandning i top og bund, stedsområder udføres også med afstandning og med en stedafstand på 3-5 mm mod hjørner, vinduer og døre.
Ved samling udføres breder underlig.

Montage i levrigt iht. leverandørens anvisninger.

Afstandslister i:
Lodretes og vendrette afstandslister i trykprægnet træ (jordkendt jf. biocidordningen EU 528/2012). Dimension 25x50 mm. Monteres pr. 600 mm. Fastgøres med Ringslam - TEF GR 2,6x3 mm, varmgiv.

Konstruktionssætter:
Konstruktionssætter C24. Monteres lodret pr. max. 600 mm. Dimension 45x95 mm.
Isolering:
Isolering: Isolering med Rovinex 34 (glasuld), 95 mm.

Vindplade som Combit Windstopper Extreme, 9 mm:
Fastgøres med Ringslam - Pastole 2,5x50 mm Hot dipped galvanised Ring Shank
Montage i levrigt iht. leverandørens anvisninger

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Claus

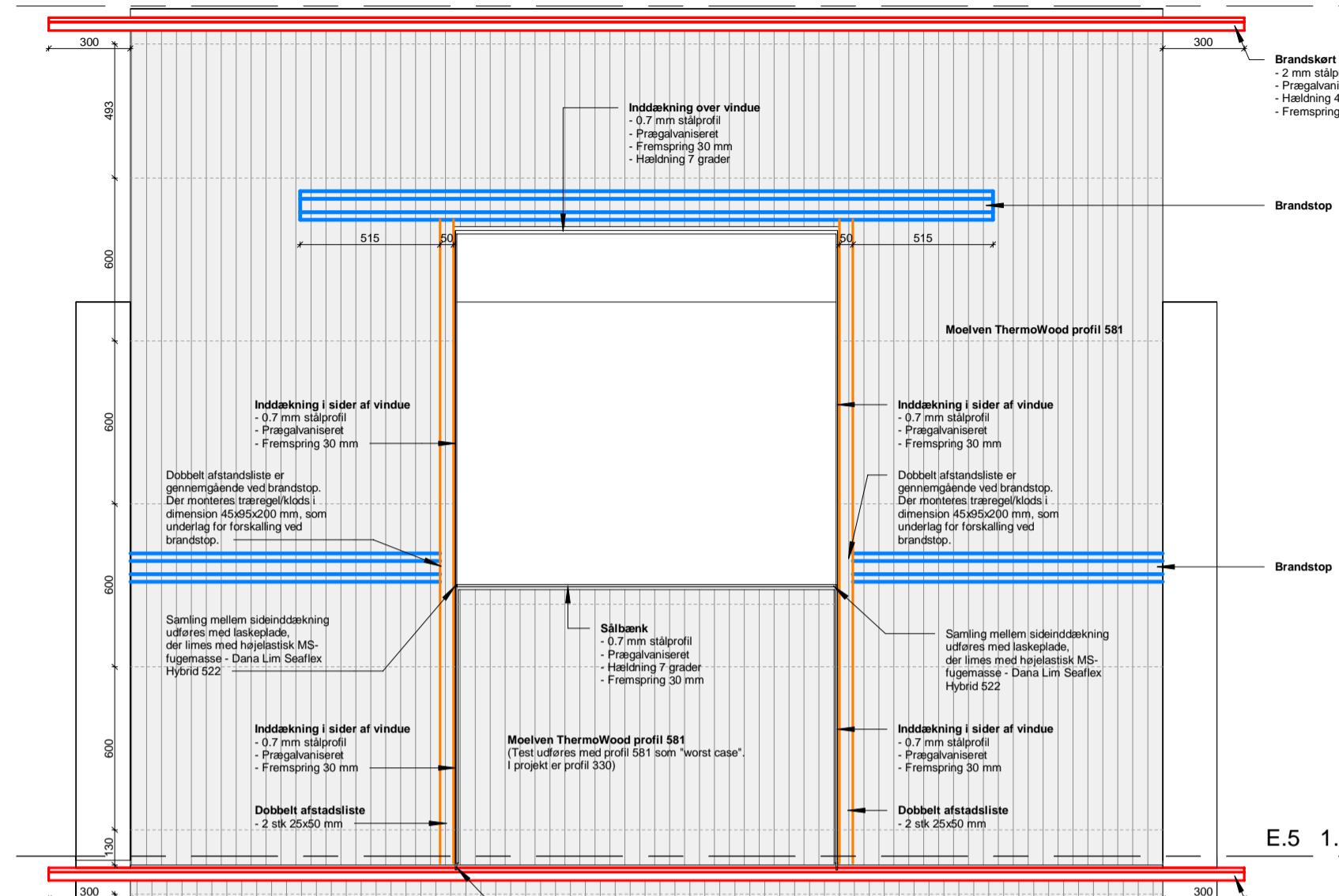
Brandtest 2- Plan, snit og opstalt

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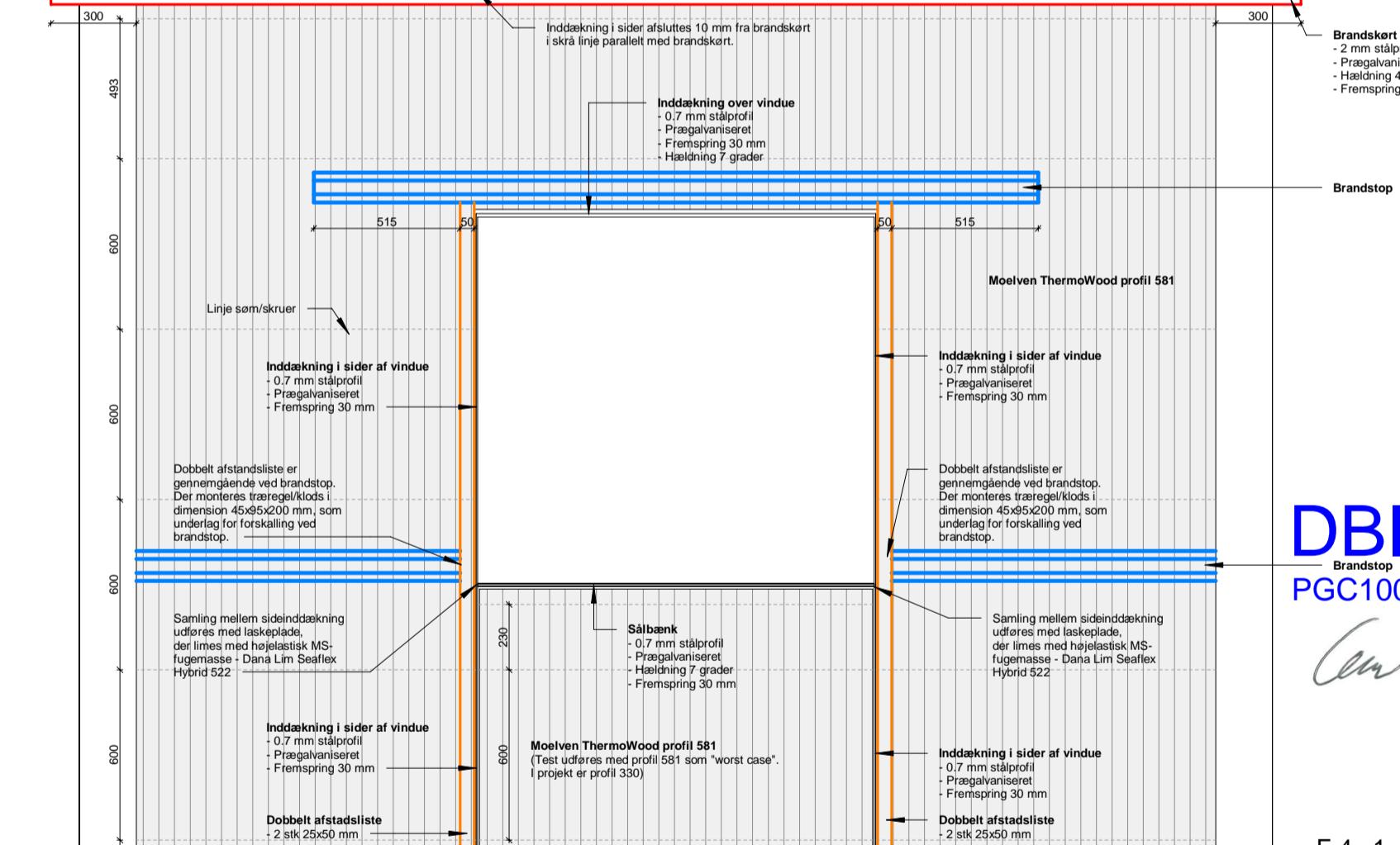
E.6 6.sal

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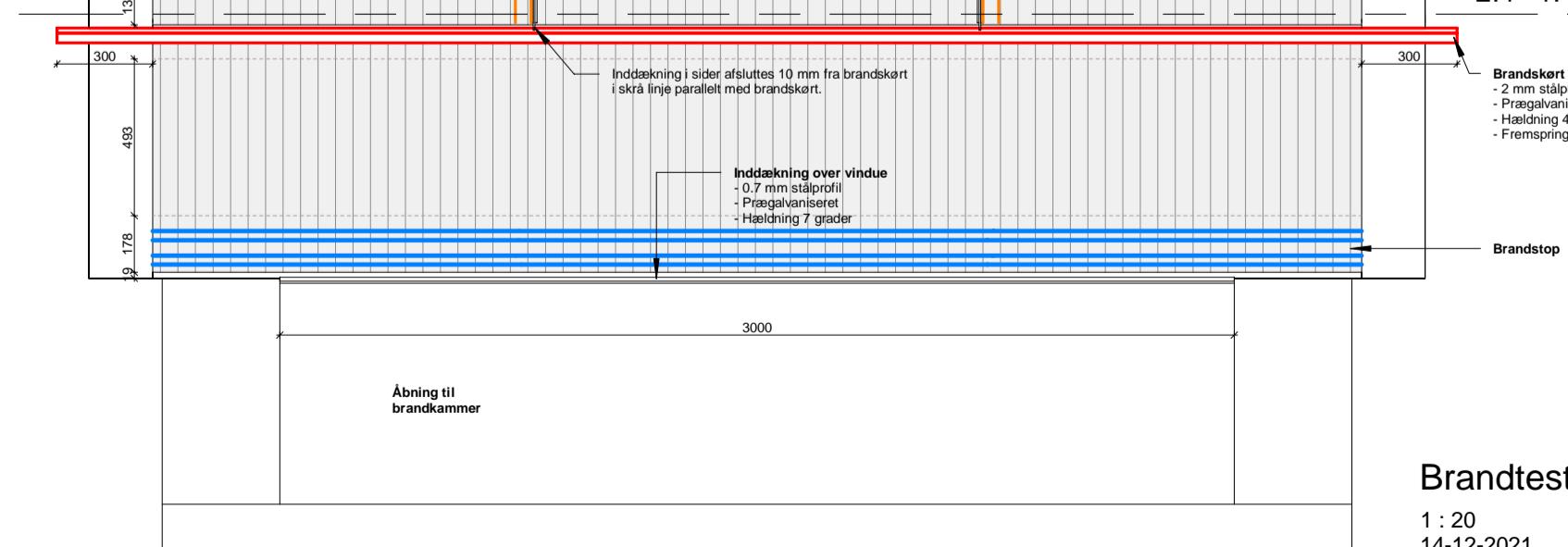
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E.4 1. sal UK dæm

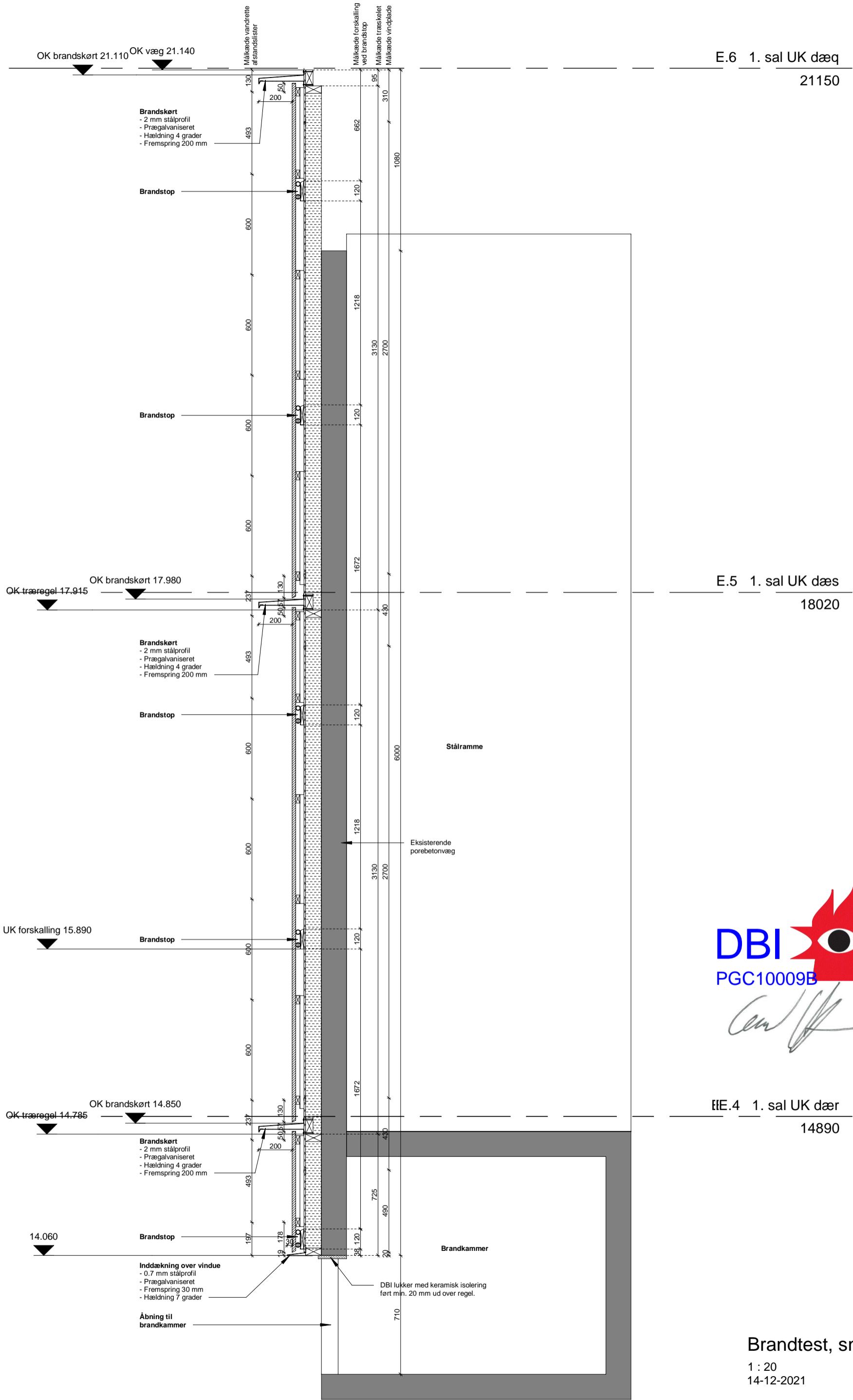
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Brandtest, opstalt A3

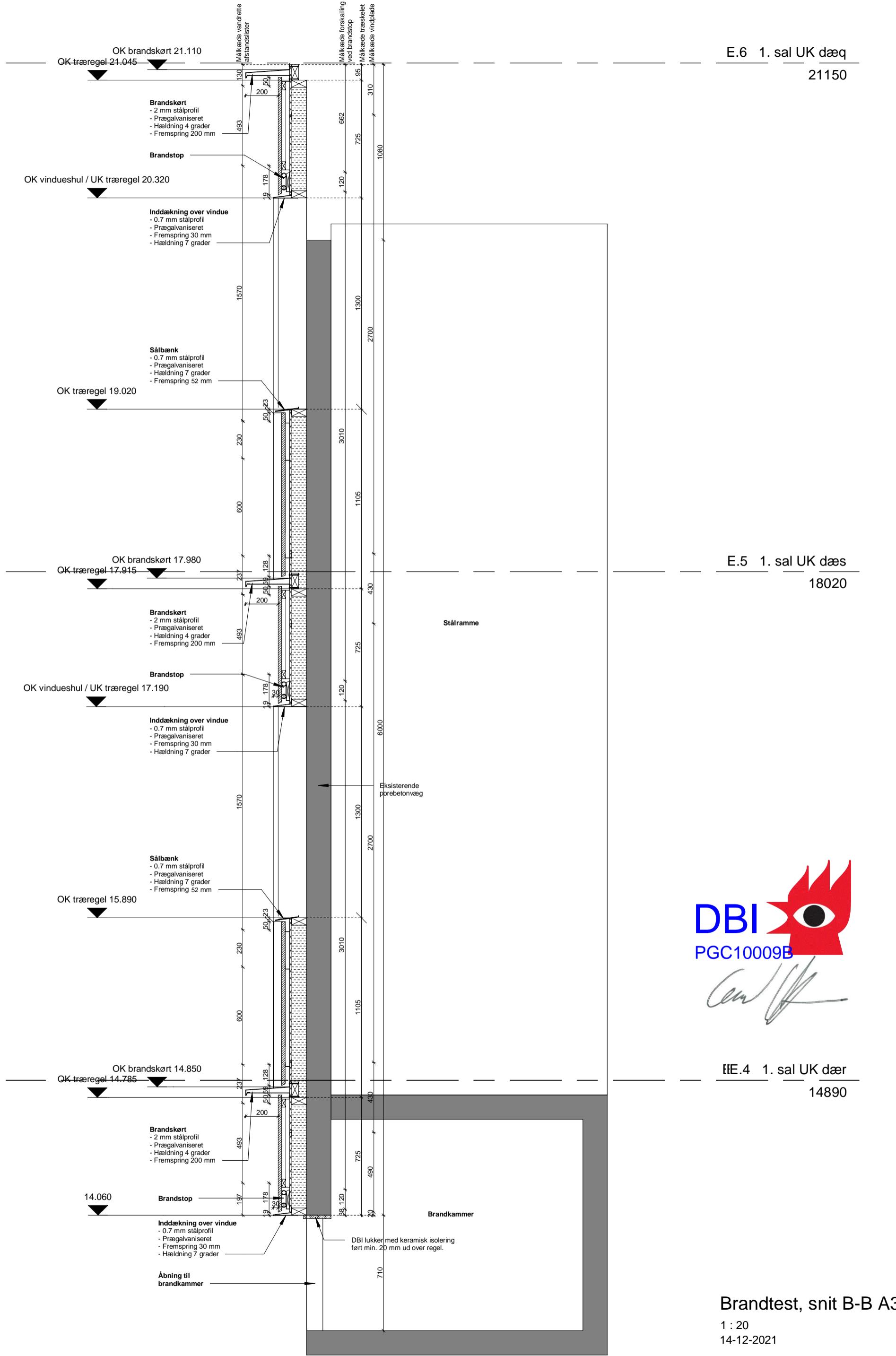
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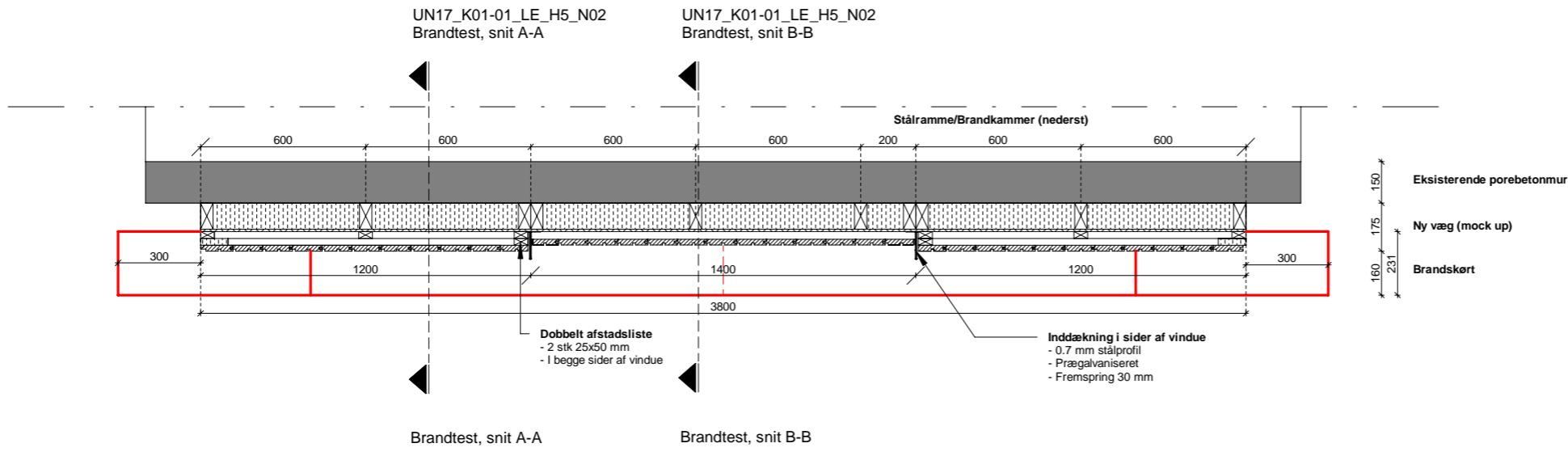
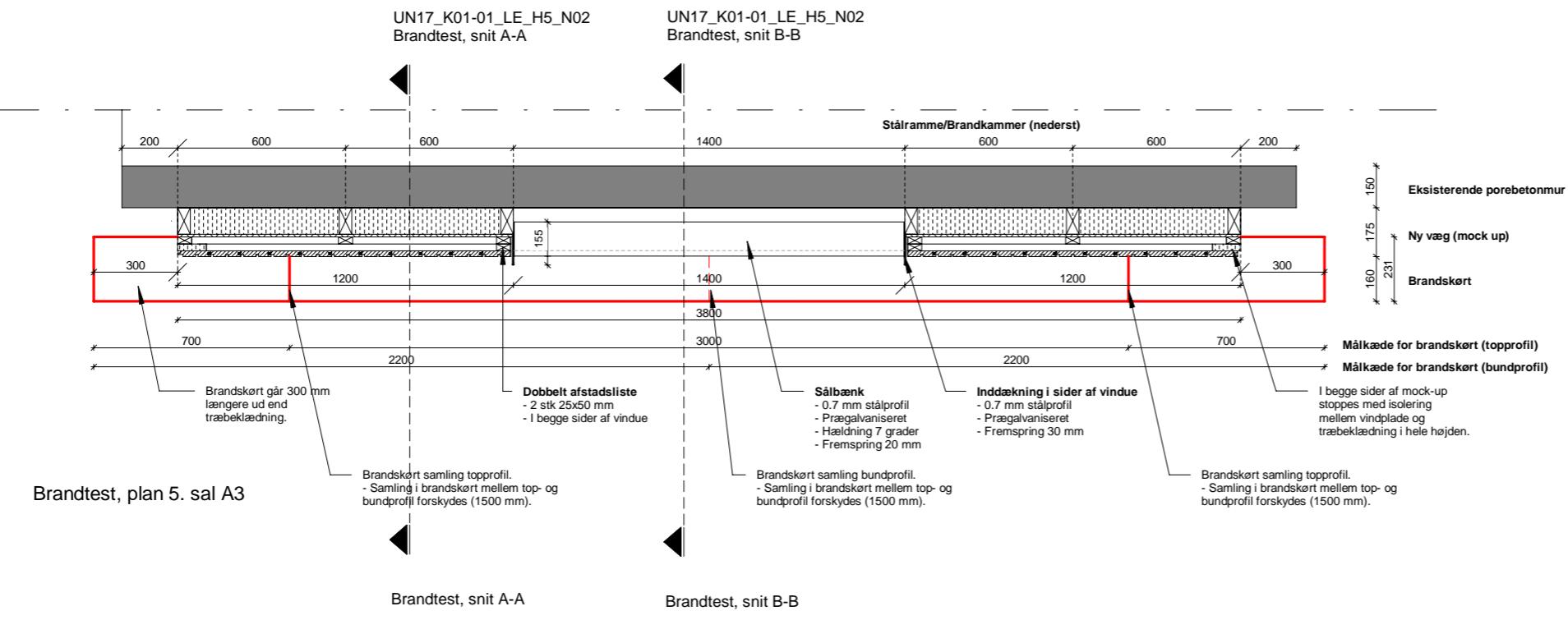
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Brandtest - snit B-B A3

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14-12-2021



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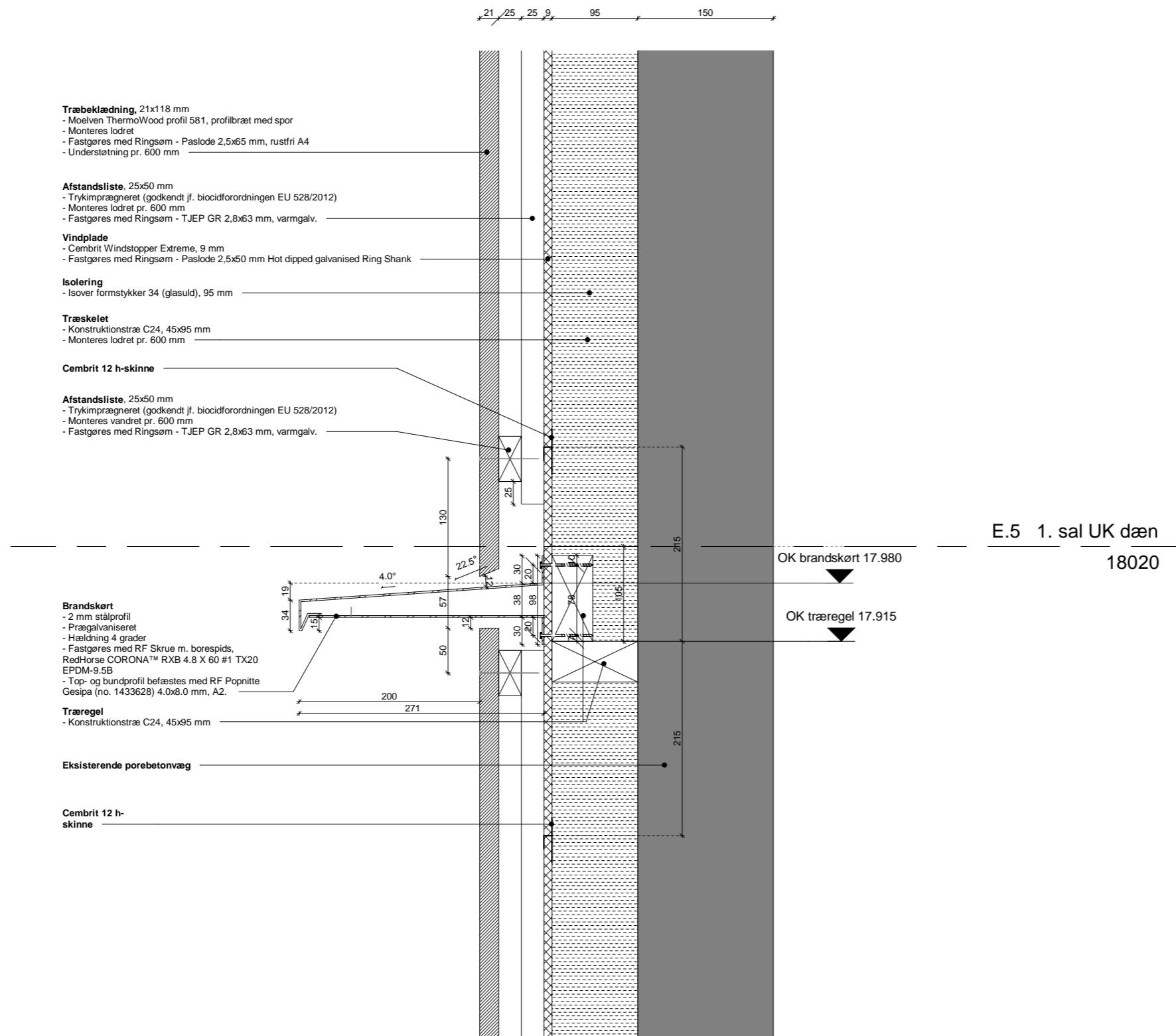


Brandtest 2 - Planer

Dato: 14-12-2021 Rev:
Mål: 1:20 Rev dato:

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UN17 Village



Brandtest 2 - Lodret detalje af brandskørte

118.6863
UN17 Village

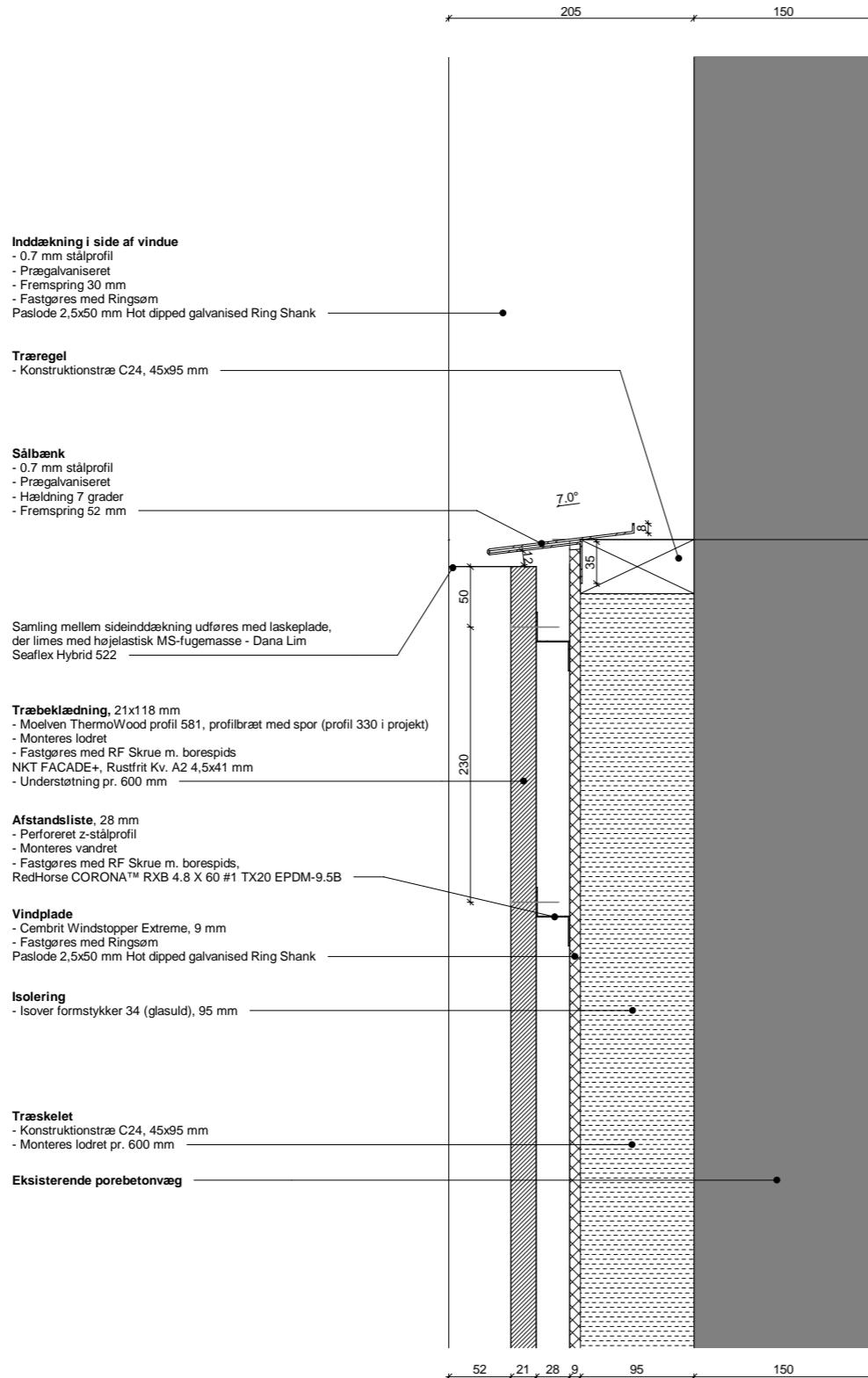
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Mål: 1:5

Rev dato:

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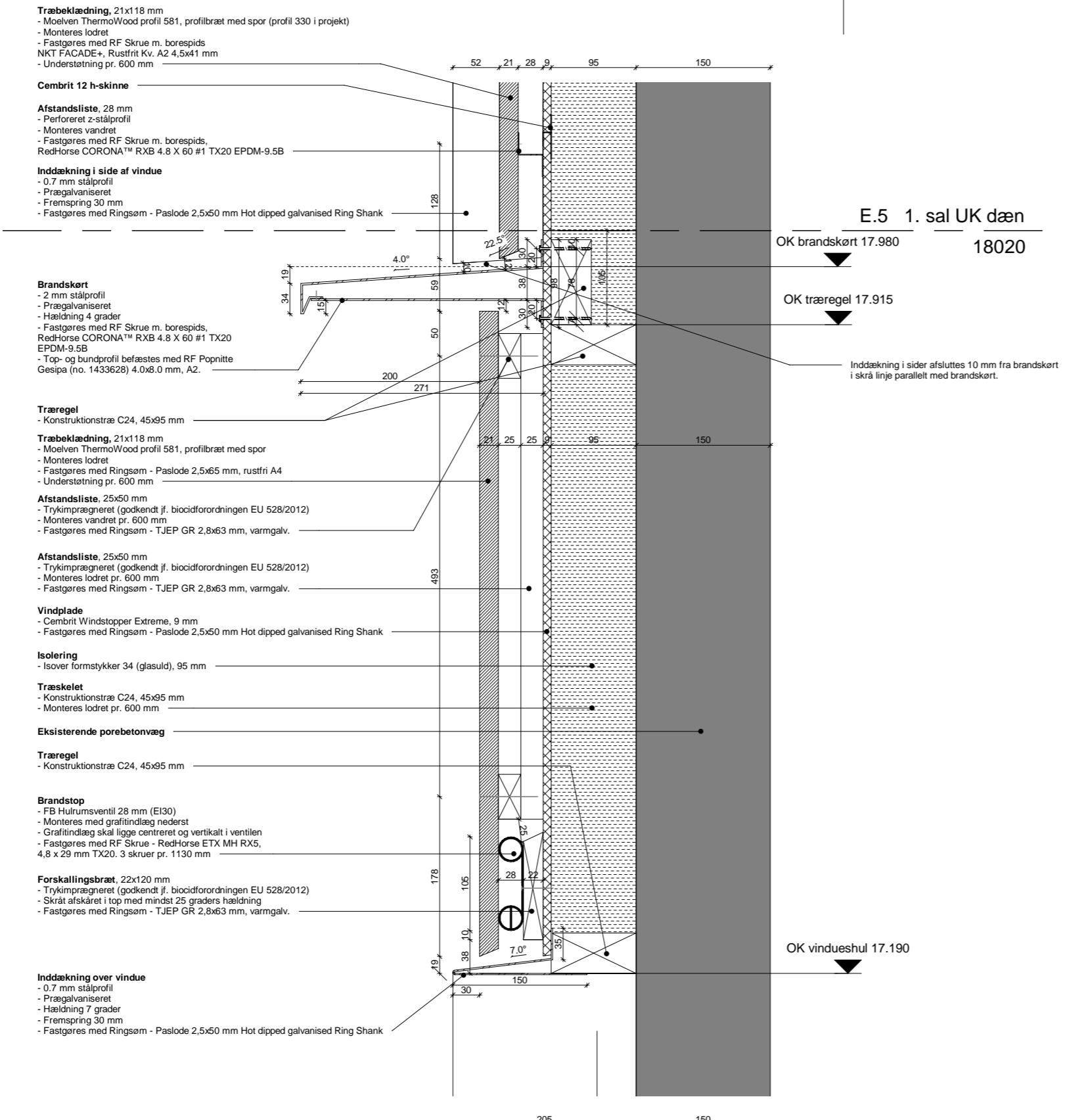
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Brandtest 2 - Lodret detalje af bund af vindue

118.6863
 UN17 Village

Dato: 14-12-2021 Rev:
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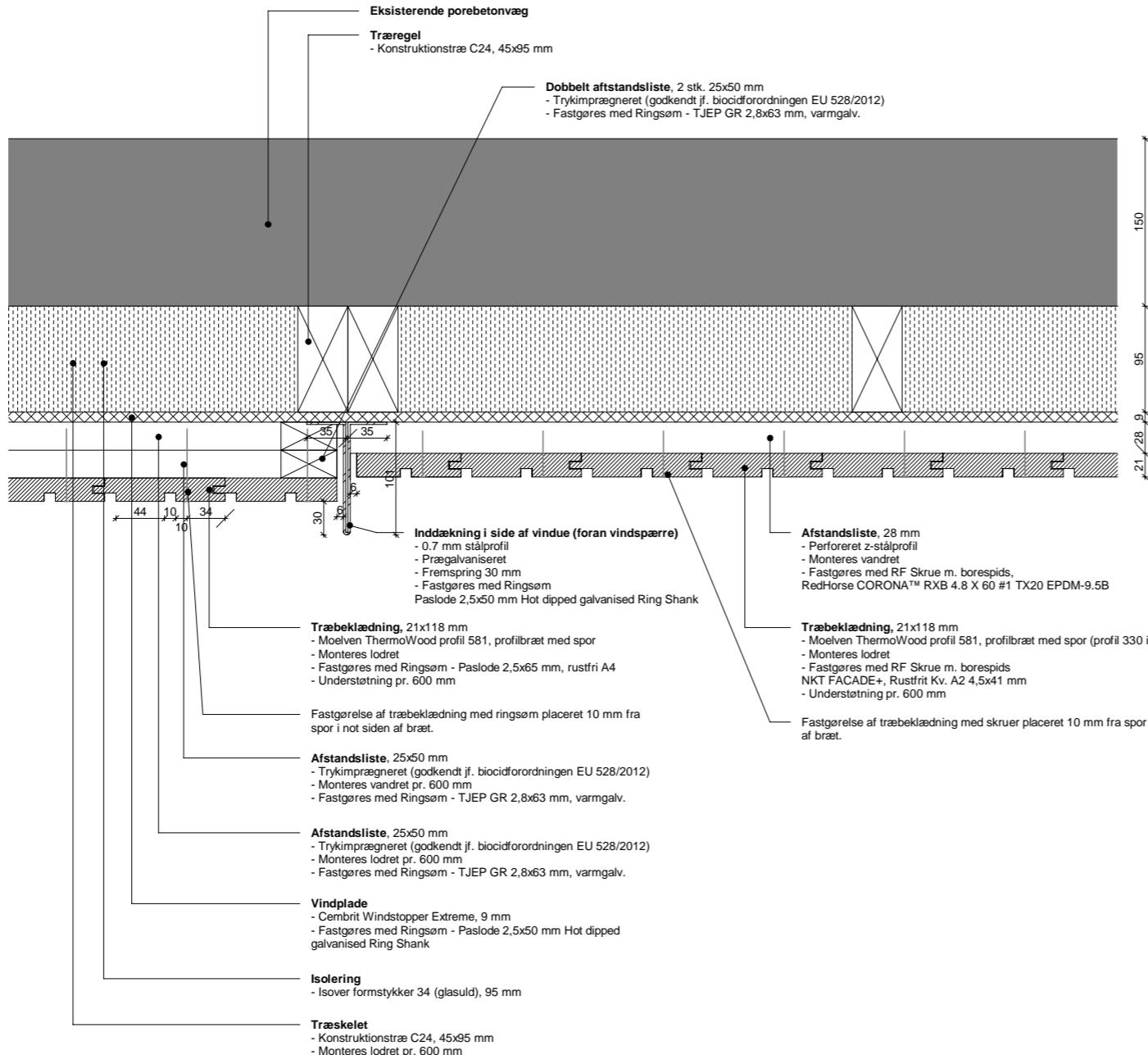
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Brandtest 2 - Lodret detalje over vindue inkl. brandskør

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 UN17 Village

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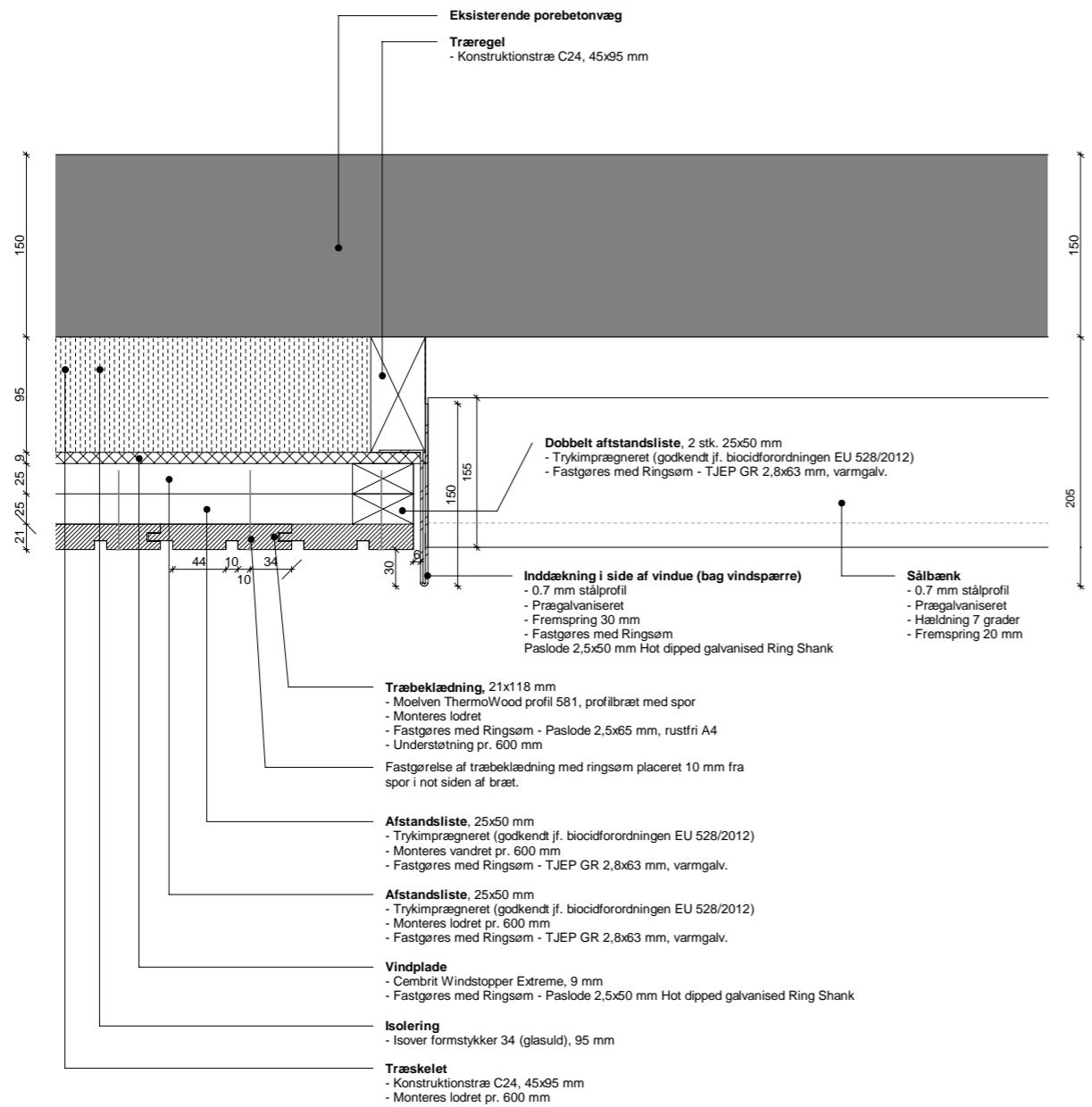
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Brandtest 2 - Vandret detalje af ydervæg og brystningsparti

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UN17 Village

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Brandtest 2 - Vandret detalje af ydervæg og vindue

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UN17 Village

Dato: 14-12-2021 Rev:
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