



Instytut Techniki Budowlanej

Group of Testing Laboratories

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accreditation certificate № AB 023

TEST REPORT

LZP02-000505/26/Z00NZP

Client:	Lausitzer Naturbaustoffe GmbH, Schafbergstraße 27 02-694 Malschwitz OT Dubrauke
Test specimen: (provided by the Client)	Non-loadbearing wall of Rapido Lehmkartonplatte 800
Issue date:	15 April 2026

Fire testing Laboratory (LZP)
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member of **egolf**

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1. Information about test

Test date:	2026-03-24.
Test method:	EN 1364-1:2015
Test location:	Laboratorium LZP, ul. Przemysłowa 2, 26-670 Pionki, Poland.

2. Test specimen

2.1. Information provided by the Client

Technical documentation was delivered by the Client as one consolidated document.
This entire document is attached unchanged in Annex A.

2.2. Information obtained by the Laboratory during inspection

2.2.1. General

Receipt of the test specimen:

Date: 2026-03-24.

Protocol: LZP02-00505/26/Z00NZP.

2.2.2. Preparation and conditioning of the test specimen:

Preparations of the test specimen:**Test specimen**

preparation/assembly period: from 2026-02-04 to 2026-02-13.

Conditioning:

Period: from 2026-02-14 to 2026-02-23.

Conditions: temperature from 15.4°C to 20.1°C.
relative humidity from 16% to 50%.

Condition of the test specimen:

The test specimen was provided in condition and quantity sufficient for the test. The test specimen was mounted in the supporting construction in a manner allowing for test execution.

2.2.3. Number, size and selection of test specimens

Number of test specimens: one test specimen was tested with non-symmetrical construction

Size of the test specimen: The structures can have unlimited width and bigger height in practice. Therefore, the test was conducted on the test specimen with dimensions of 3700 × 3700 mm (width × height), according to clause 6.1 of EN 1364-1:2015.

Selection of test specimens: laboratory was not involved in the selection of the specimen.

Exposed side: clay plaster finished side, side selected by the Client

2.2.4. Verification of the test specimen

Verification (in practicable scope) of conformity of the specification data provided by the Client with the test specimen was made before and after the test. Verification measurements are not encompassed by accreditation.

Parameter:	Value measured/verified by the Laboratory:
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Width of the wall:	according to the description in section 2.1.
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Hight of the wall:	according to the description in section
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	2.1.
Thickness of the wall:	according to the description in section 2.1.
Type, number, dimensions and layout of the individual materials/layers:	according to the description in section 2.1.
Type, number and distribution of the fasteners:	according to the description in section 2.1.
Thickness of the clay boards:	21.9 mm.
Surface weight of the clay boards:	12.1 kg/m ² .
Moisture content of the of the clay boards:	2.76 %.
Thickness of the wood-wool boards:	78.7 mm.
Density of the wood-wool:	56.8 kg/m ³ .
Moisture content of the of the wood-wool:	6.4 %.
Cross-section of timber studs and bottom and top plates:	58.7× 78.95 mm (w × h).
Moisture content of the of the timber elements:	10.5 %.
Clay plaster thickens on exposed side:	9.1 mm.
Clay plaster thickens on unexposed side:	8.3 mm.

Method of moisture content determination:

$$W_s = \frac{m_w - m_d}{m_d} \cdot 100\%$$

key: m_w – wet mass , m_d – dry mass; drying temperature: 105°C.

Mounting of test specimen:

Test specimen and supporting construction were prepared in Fire Testing Laboratory in Pionki. The works were carried out by Client's employees.

Supporting construction:	standard, rigid, low density, total thickness of 240 mm.
Fixing to the supporting construction:	according to Client's documentation, the right-hand side edge (viewed from unexposed side) remained unfixed (free edge).

**Photographical documentation
of the test specimen prior to the
test:**

Figs. 1 and 2.



Fig. 1. Test specimen prior to the test - unexposed side



Fig. 2. Test specimen prior to the test - exposed side

3. Fire resistance test

3.1. Test method

3.1.1. General

Method:

EN 1364-1:2015EN 1364-1:2015 .

Deviations:

no deviations.

Standards referenced in the method, relevant for the test:

EN 1363-1:2020.

Field of application of the method:

This report details the method of construction, the test conditions and the results obtained when the specific element of the construction described herein was tested following the procedure outlined in EN 1363-1, and where appropriate EN 1363-2. Any significant deviation with respect to size, constructional details, loads, stresses, edge or end conditions other than those allowed under the field of direct application in the relevant test method is not covered by this report.

Additional remarks:

Execution of the test, ambient conditions and accuracy of utilized measuring devices were in accordance with requirements of the method.

The uncertainties of the measurements made during this test are within ranges required by appropriate test methods.

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.

3.1.2. Test conditions

Initial furnace temperature:	22.0°C (22.0°C < 50°C – condition met).
Heating temperature:	Fig. 3, standard temperature/time curve.
Number of furnace plate thermometers:	16.
Heating accuracy:	Fig. 4.
Furnace nominal pressure:	20 Pa at the top of the specimen.
Furnace pressure (in the test):	Fig. 5. Pressure sensor P3 was located 14 cm below the top of the specimen and its location corresponds to pressure of 18.8 Pa.
Initial unexposed surface temperature:	18.3°C.
Ambient temperature measured by the device according to EN 1363-1:2020:	Fig. 6.
Locations of the temperature and deflection measurement points:	Fig. 7.

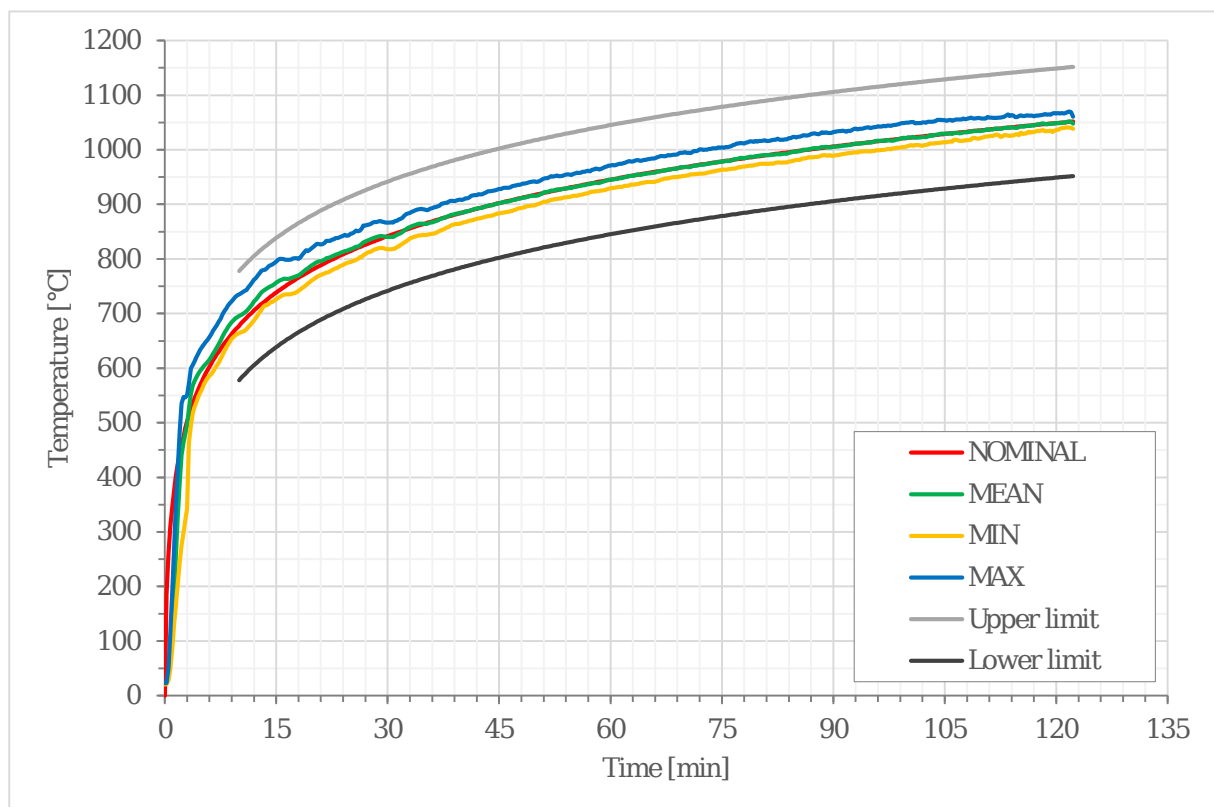


Fig. 3. Temperature/time curve of the furnace heating conditions

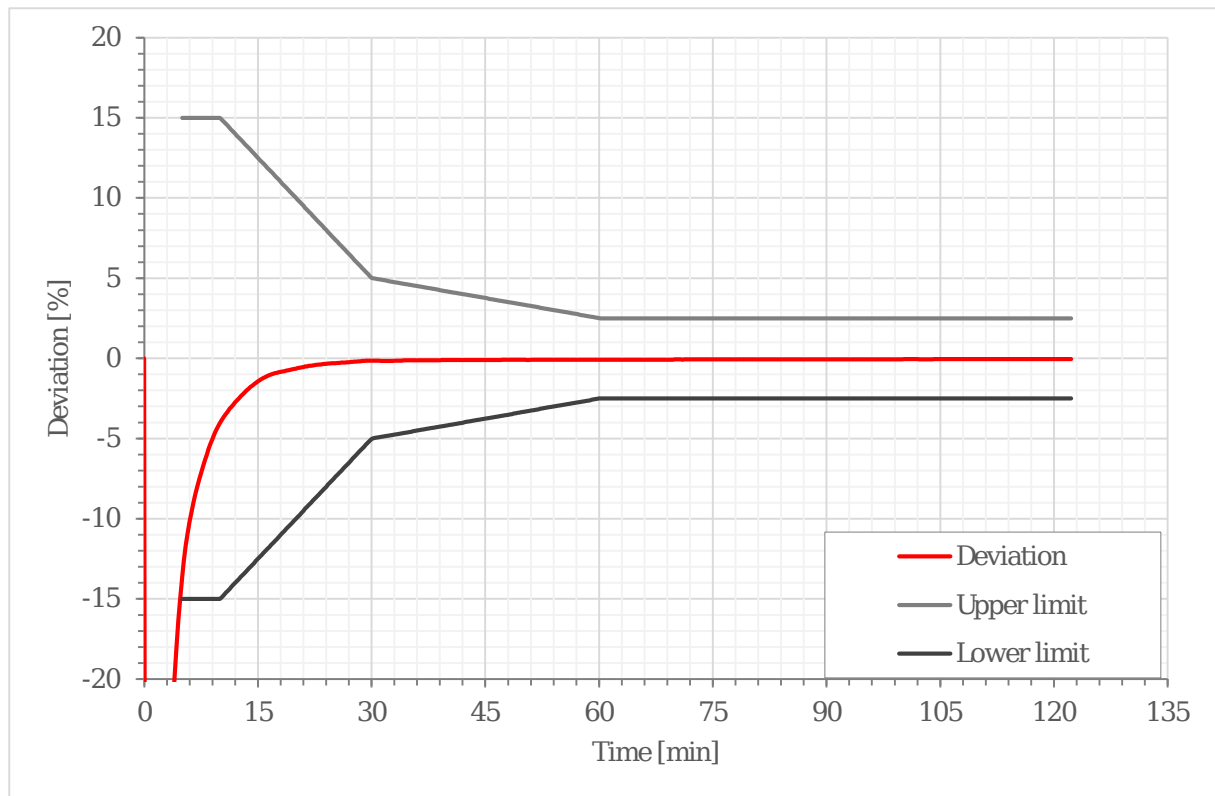


Fig. 4. Heating tolerances

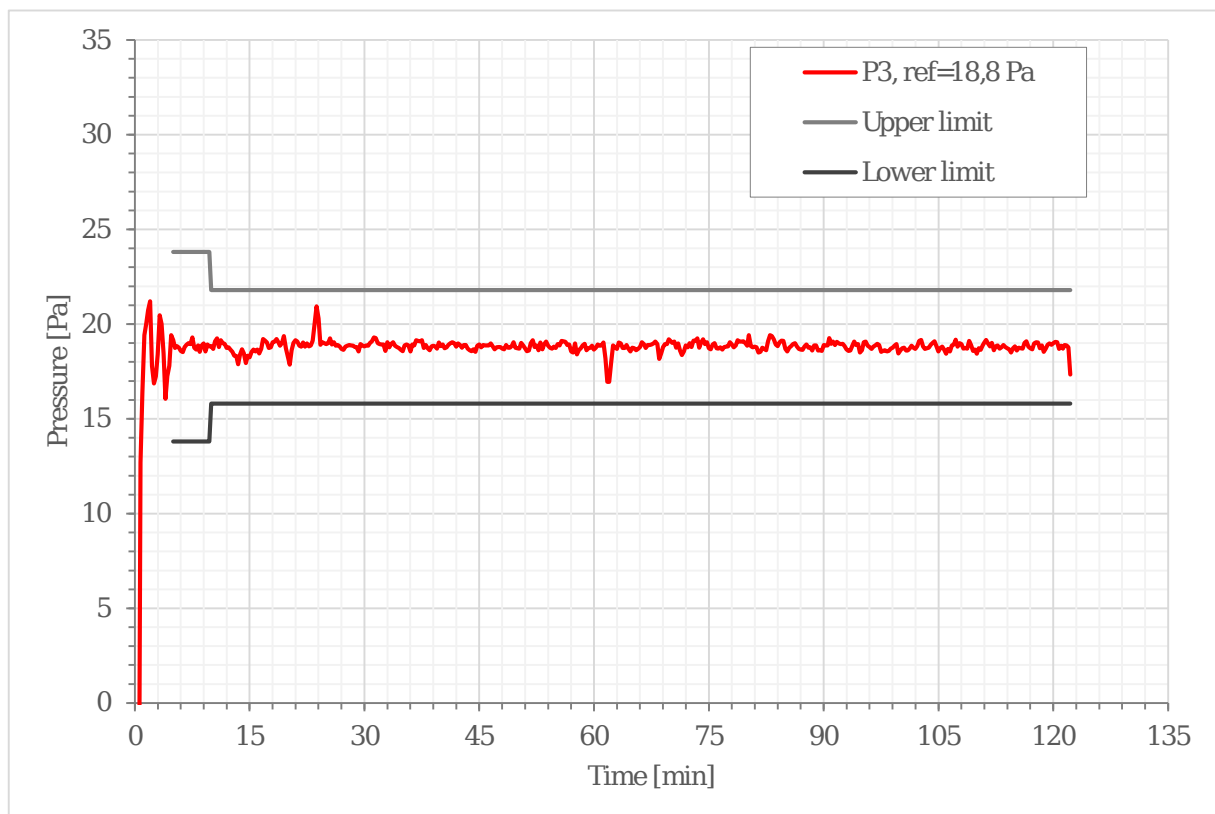


Fig. 5. Pressure conditions within the furnace

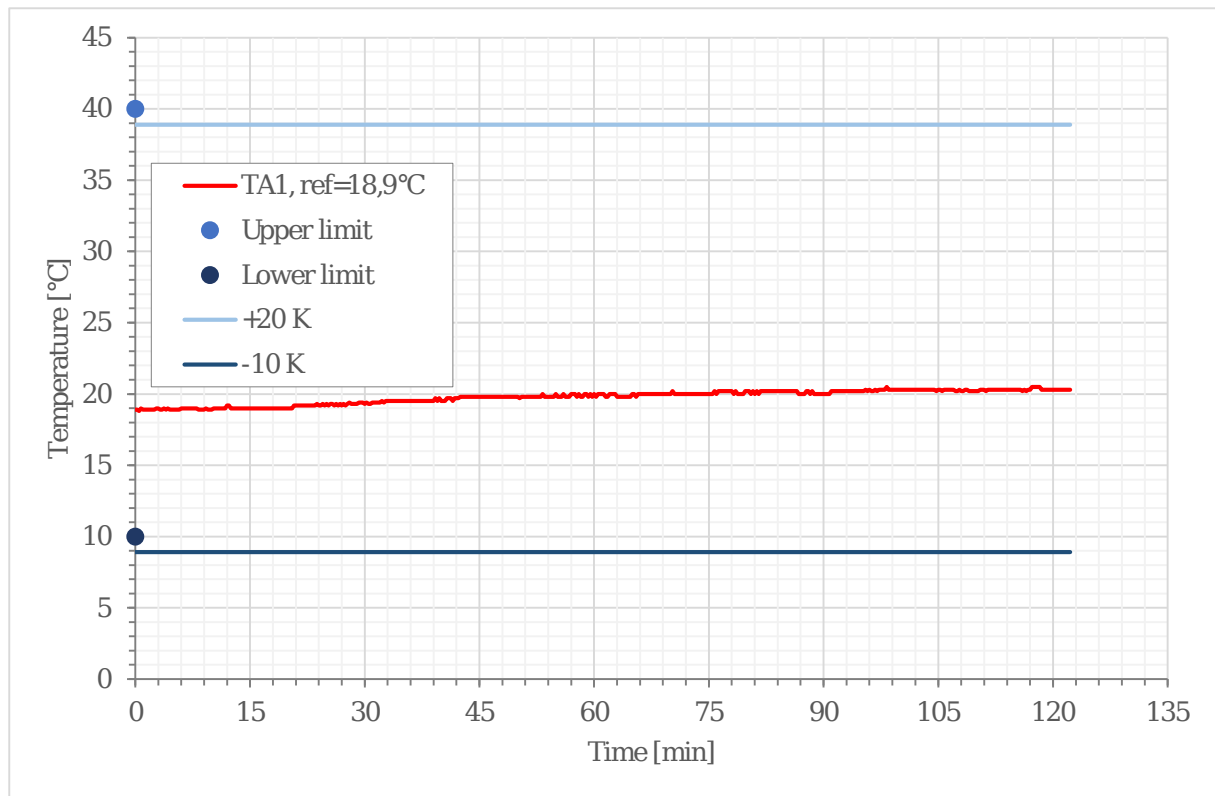
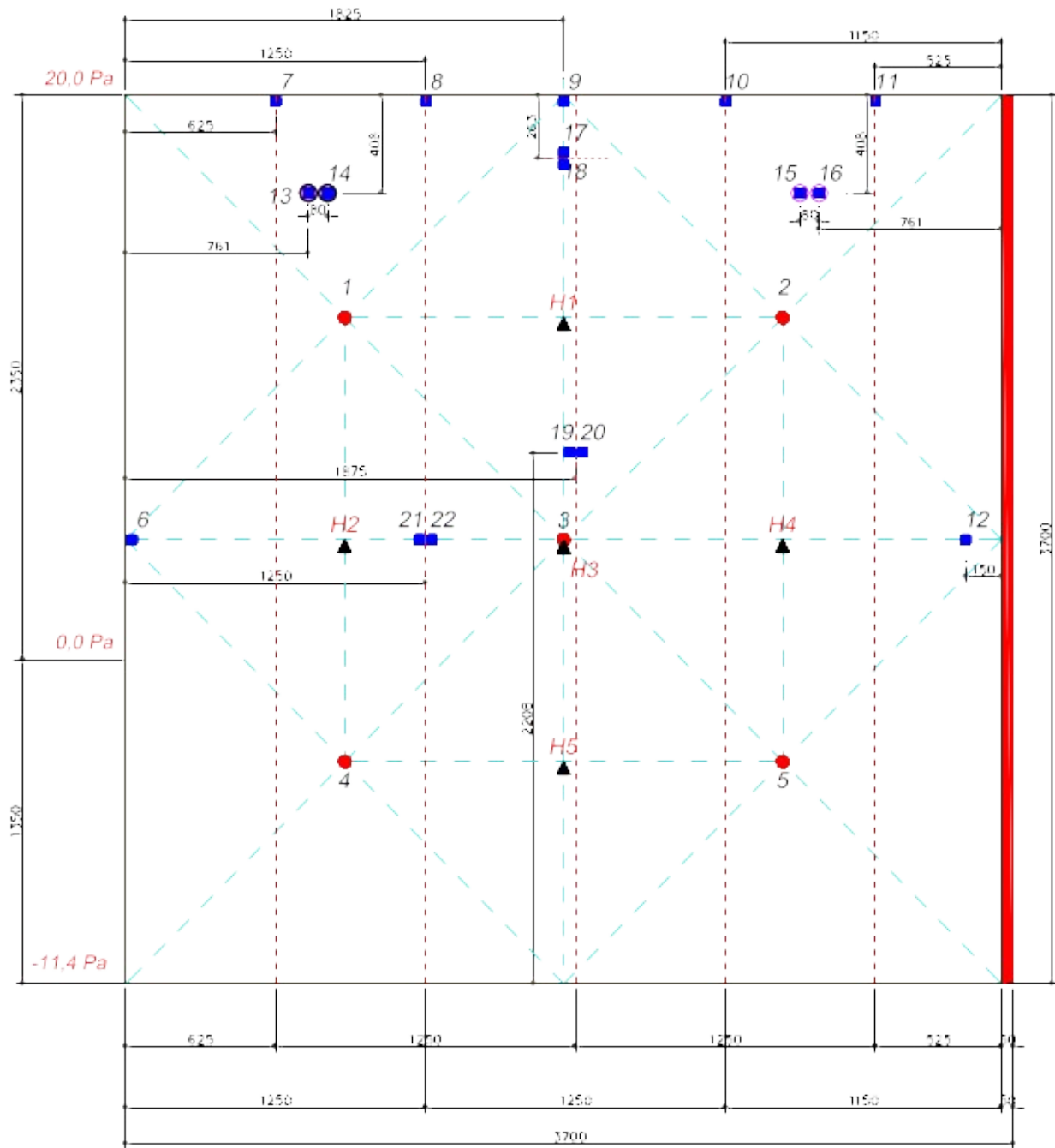


Fig. 6. Ambient temperature of the laboratory



- 1 - 5 average and maximum temperature thermoelements (TE)
- 6 - 22 maximum temperature thermoelements (TE)
- ▲ H1 - H5 location of the horizontal deflection measurements

Fig. 7. Location of measurement points of the temperature and deflection

3.2. Results

3.2.1. General

Test duration: 122 min 20 s.

Unexposed surface temperature rise: Figs. 8 to 11.

Horizontal deflection: Fig. 12.

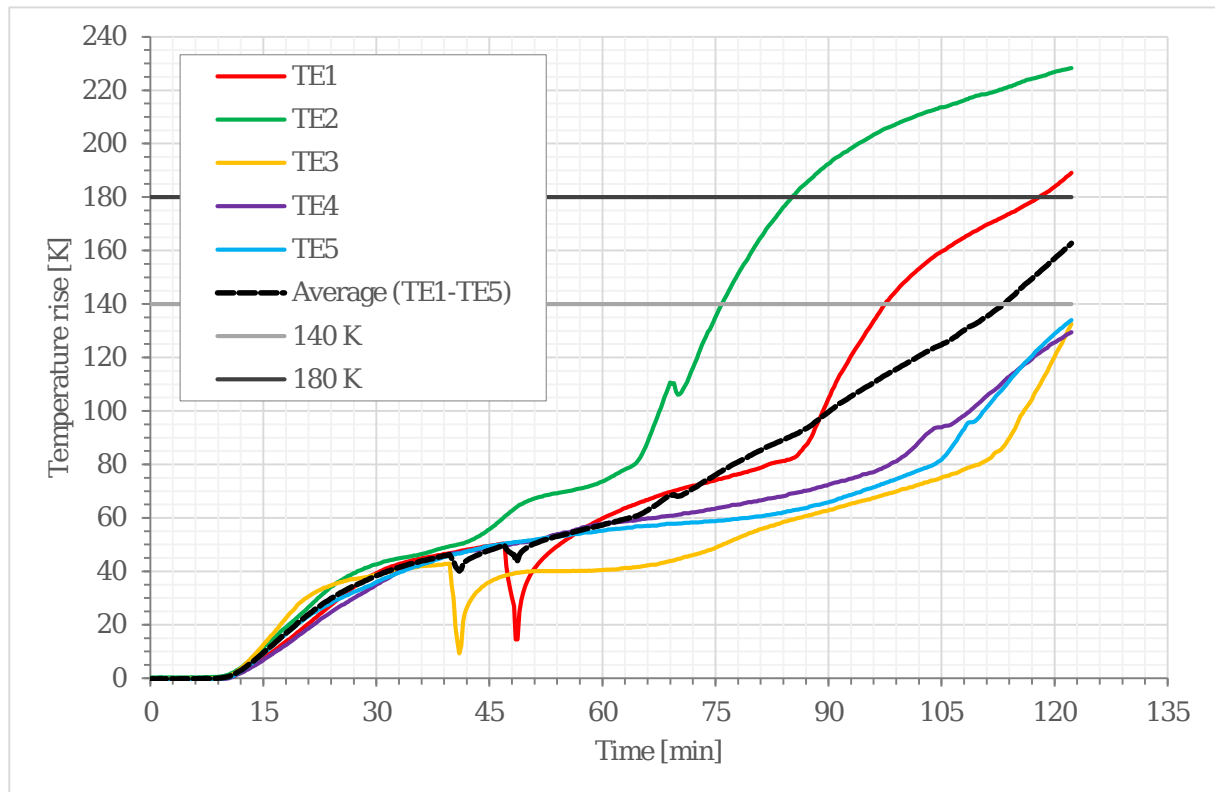


Fig. 8. Unexposed surface temperature

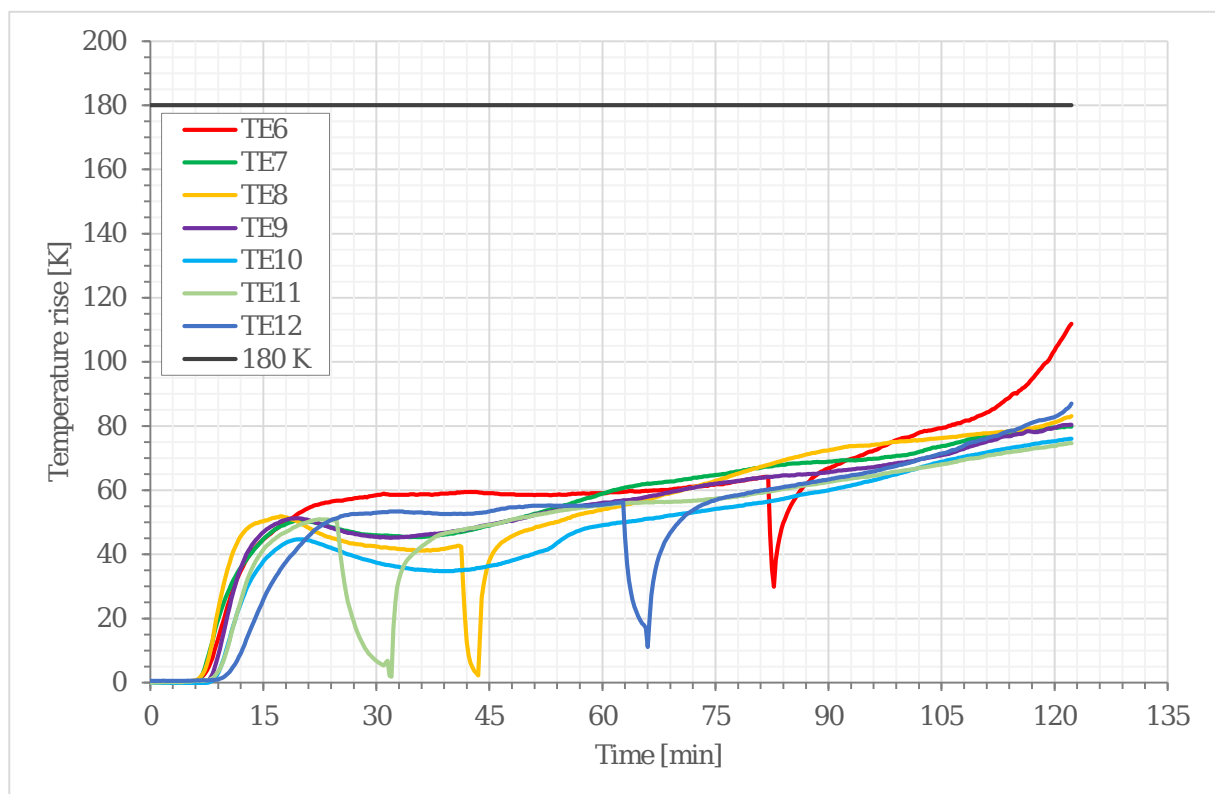


Fig. 9. Unexposed surface temperature

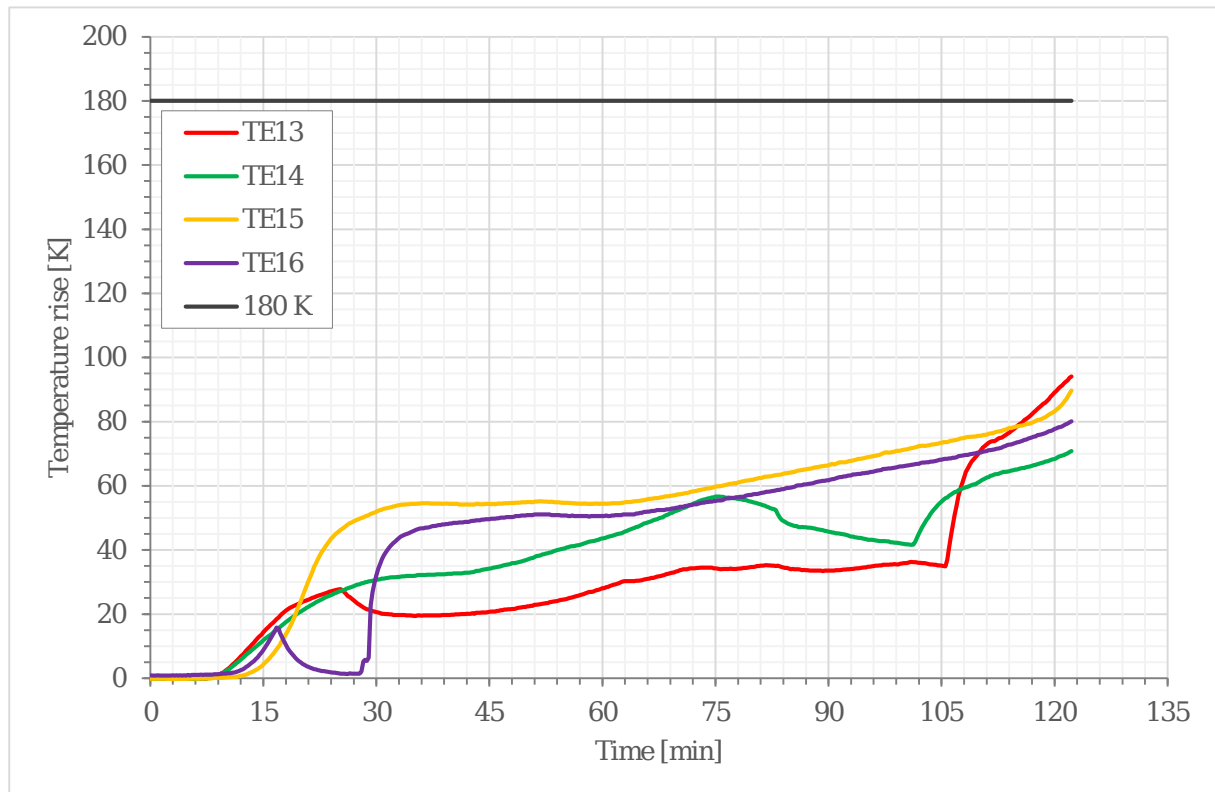


Fig. 10.Unexposed surface temperature

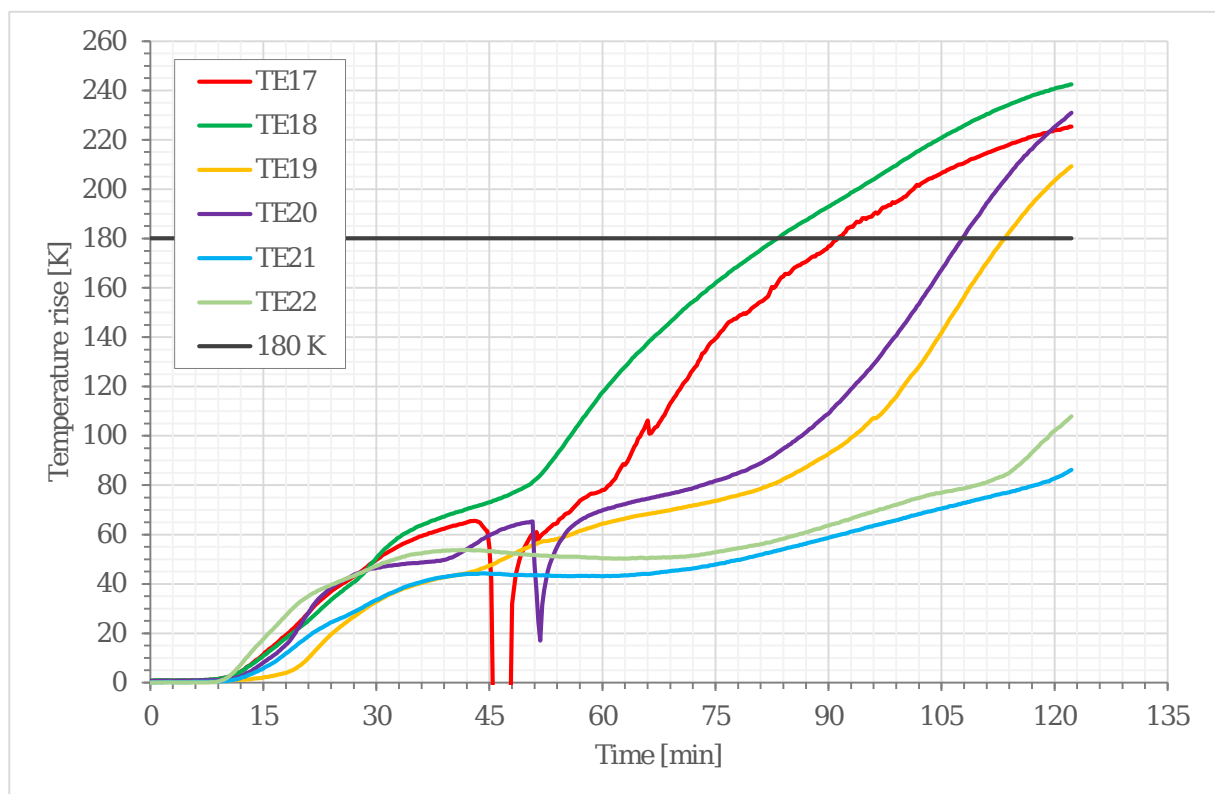
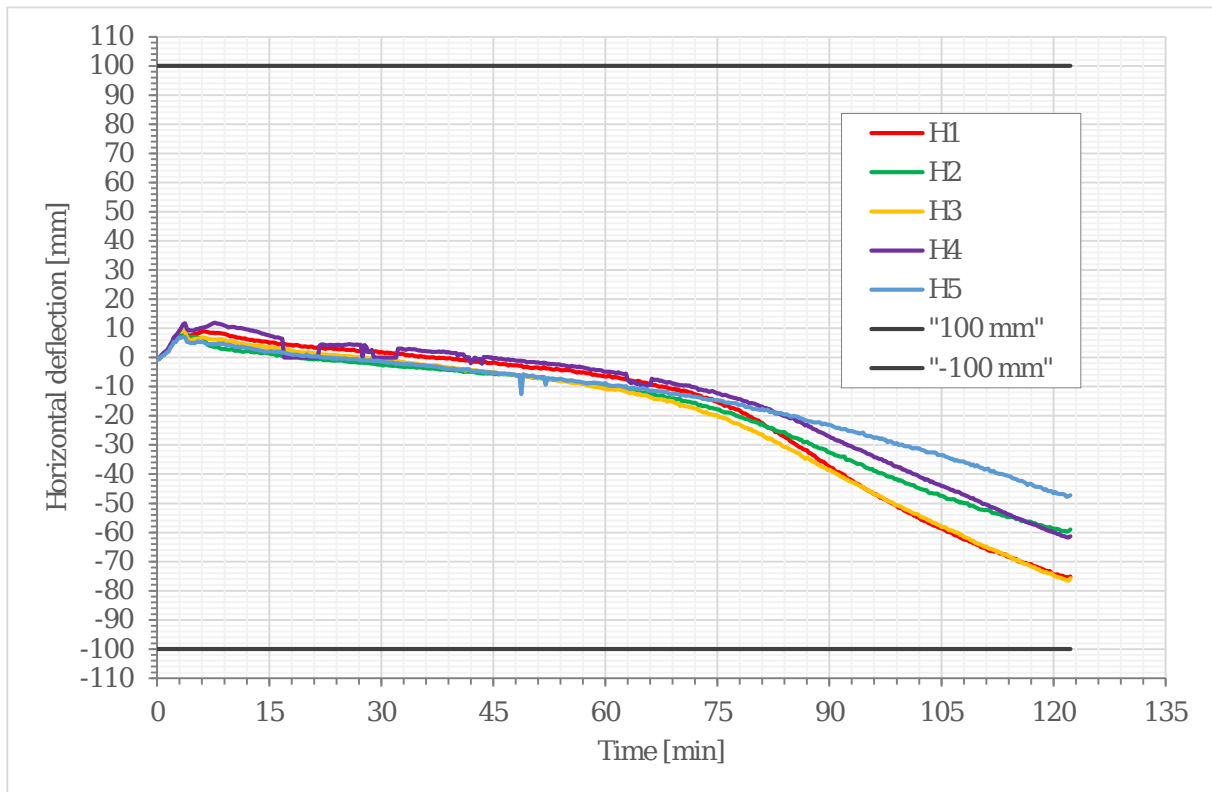


Fig. 11.Unexposed surface temperature



Note: Negative values indicate deformation away from the furnace chamber.

Fig. 12. Horizontal deflection

3.2.2. Observations and photographical documentation

Photographical documentation of the test specimen during and after the test:

Figs. 13 to 22.

Observations:

Time	Type	Record
0 min 00 s	U	start of heating – commencement of the test
4 min 00 s	E	horizontal cracks of the boards and flames released from these cracks
10 min 00 s	E	rise of horizontal cracks of the boards and more flames released from these cracks
15 min 00 s	E	vertical cracks of the boards and flames released from these cracks, part of plaster of about 20×20 cm fell off
25 min 00 s	U	beginning of detachment of thermocouples due to moisture migration and wetting of the clay plaster external surface, thermocouples were reattached as soon as possible
28 min 00 s	U	beginning of steam and smoke release from vertical and upper fixed edges with supporting construction
32 min 00 s	U	rise of steam and smoke release from vertical and upper specimen fixed edges - see photo on Fig. 14
50 min 00	U	decrease of steam and smoke release from vertical and upper

Time	Type	Record
s		specimen fixed edges
60 min 00 s	U	beginning darkening of the plaster close to thermocouple TE18 - see photo on Fig. 15
66 min 00 s	U	roving thermocouple applied 20 mm at the left-hand side of thermocouple TE18 - reading: 150°C
83 min 12 s	U	temperature rise on the thermocouple TE18 over 180 K
102 min 30 s	U	detachment of the thermocouple TE14 together with electrical socket cover
105 min 35 s	U	detachment of the thermocouple TE13 together with electrical socket cover, intumescent material expanded in both electrical sockets
119 min 30 s	U	single flame tongues lasted for max 3 seconds at the vertical fixed edge above thermocouple TE6 - see photo on Fig. 19
120 min 49 s	U	beginning of continuous flame of 12 seconds on unexposed surface at the vertical fixed edge above thermocouple TE6 - see photo on Fig. 20
122 min 20 s	U	termination of the test (reason: attainment of integrity and insulation criteria)

Note: U - observation at unexposed side of the test specimen, E - observation at exposed side of the test specimen



Fig. 13. Unexposed side of the test specimen, $t = 15 \text{ min } 05 \text{ s}$



Fig. 14. Unexposed side of the test specimen, $t = 33 \text{ min } 13 \text{ s}$



Fig. 15. Unexposed side of the test specimen, $t = 60 \text{ min } 32 \text{ s}$



Fig. 16. Unexposed side of the test specimen, $t = 75 \text{ min } 04 \text{ s}$



Fig. 17. Unexposed side of the test specimen, $t = 90 \text{ min } 06 \text{ s}$

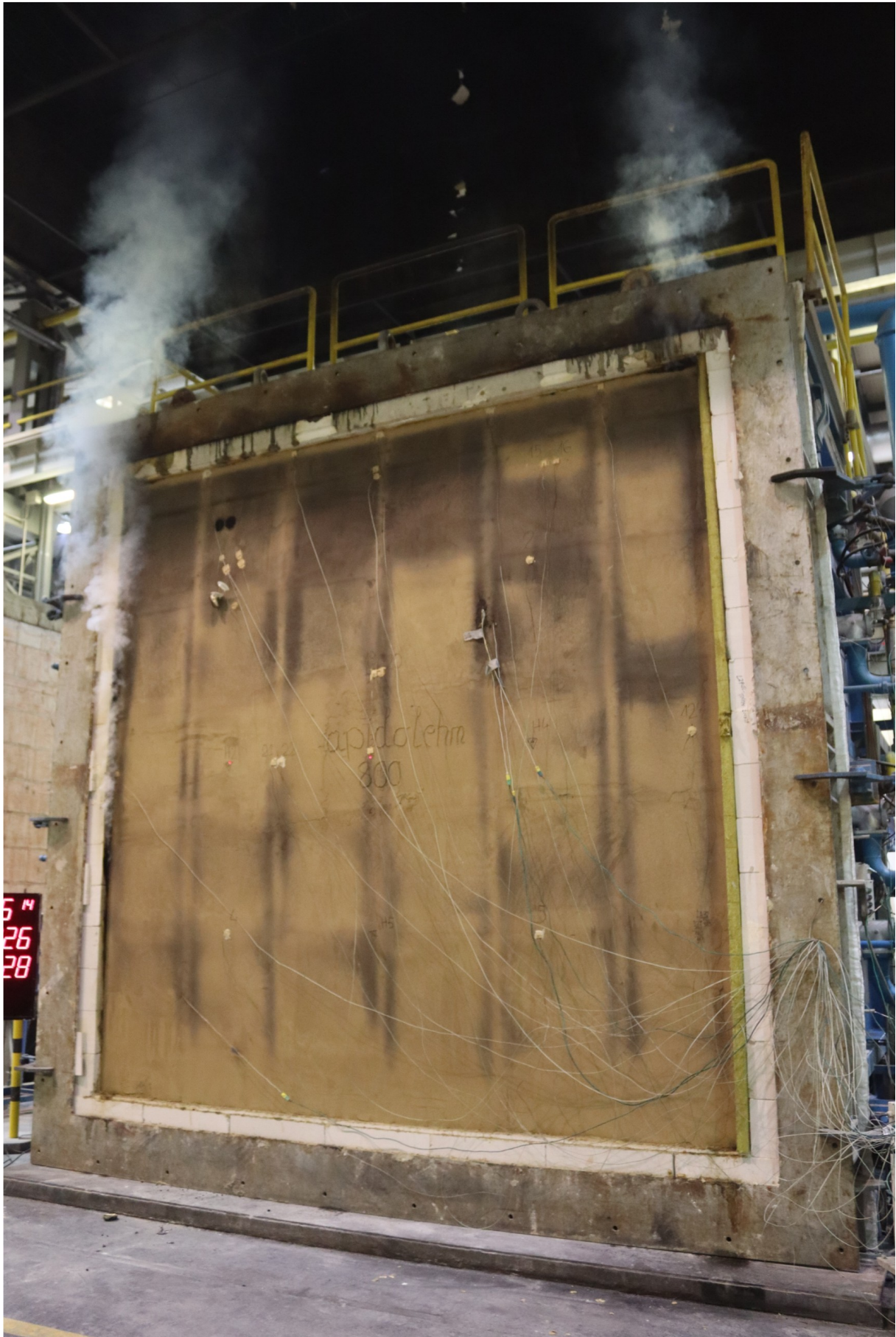


Fig. 18. Unexposed side of the test specimen, $t = 110 \text{ min } 28 \text{ s}$



Fig. 19. Unexposed side of the test specimen, $t = 120 \text{ min } 02 \text{ s}$



Fig. 20. Unexposed side of the test specimen, $t = 121 \text{ min } 01 \text{ s}$

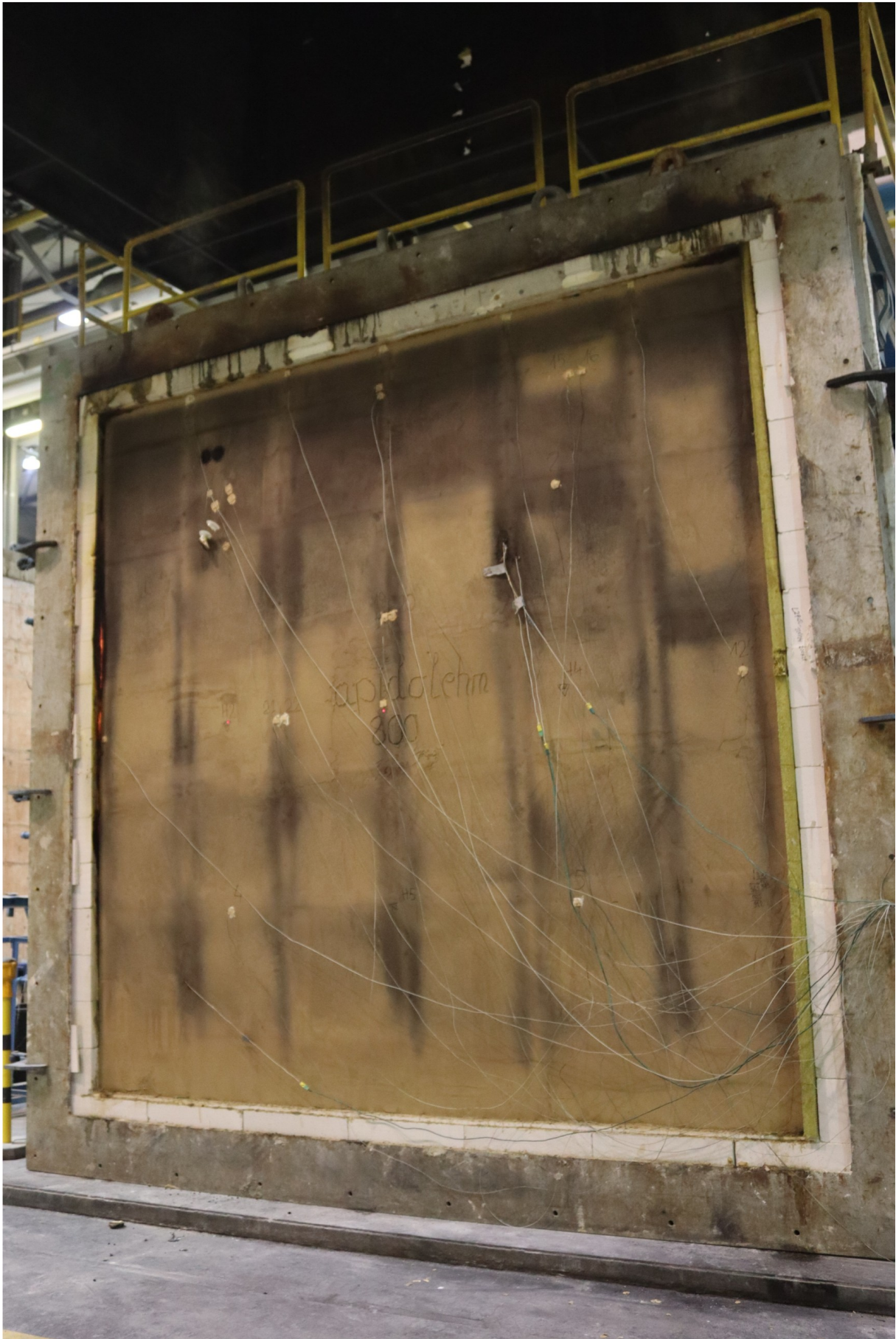


Fig. 21. Unexposed side of the test specimen just after termination of the test



Fig. 22. Unexposed side of the test specimen just after termination of the test

3.2.3. Fire resistance criteria

Integrity performance (E)	Time	Location
Sustained flaming	120 minutes	fixed vertical edge
Cotton pad	113 minutes no failure	–
6 mm gap gauge	122 minutes no failure	–
25 mm gap gauge	122 minutes no failure	–

Insulation performance (I)	Time	Location
Average temperature rise (140K)	113 minutes	Thermocouples TE1-5
Maximum temperature rise (180K)	83 minutes	Thermocouple TE18

3.2.4. Field of direct application of test results (DIAP)

According to EN 1364-1:2015, Clause 13.