

TEST REPORT

Order no: Zlec. Nr 3/ 01.07.2021

Signature: SL/Z-565/PN13823/612a/2021

Police, 03.09.2021

Test methods:

1. EN 13823:2020. Reaction to fire tests of building products – Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2020. Reaction to fire tests – Ignitability of products subjected to direct impingement of flame – Part 2: Single-flame source test.

Content of request: Research according to EN 13501-1:2018.

Sponsor: Atrium Centrum Ploterowe Sp. z o.o.
Goślawicka 2d
45-446 Opole
Poland

Material: Self-adhesive film for large-format printing Ikonos Profiflex Pro MPT FX100+

Composition: self-adhesive material intended for large-format prints, consisting of PVC foil, acrylic glue and backing paper

Manufacturer/supplier: Atrium Centrum Ploterowe Sp. z o.o. Media Ikonos Sp. z o.o.
Goślawicka 2d Goślawicka 2d
45-446 Opole 45-446 Opole
Poland Poland

Assessment: The tested product fulfils the requirements of B-s1,d0 class according to EN 13501-1:2018.

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Report applies only to the sample tested and is not necessarily indicative of the qualities of apparently identical or similar products.

Content of test report: nine pages with signature and numbers.

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1. Reaction to fire tests of building products according to EN 13823

1.1. Heat release rate

Name of measured quantity	Unit	Specimen			Average	Standard deviation
		1	2	3		
Duration of the test	s	1560	1560	1560	1560	0,00
Maximum heat release rate	kW	7,4	8,5	8,8	8,2	0,7
Total heat release THR	MJ	0,6	1,0	0,9	0,8	0,2
Total heat release in the first 600 s – THR _{600s}	MJ	0,6	1,0	0,9	0,8	0,2
Fire growth rate index FIGRA _{0,2MJ}	W·s ⁻¹	84	114	127	108	22
Fire growth rate index FIGRA _{0,4MJ}	W·s ⁻¹	0	44	48	31	27

Remarks: none.

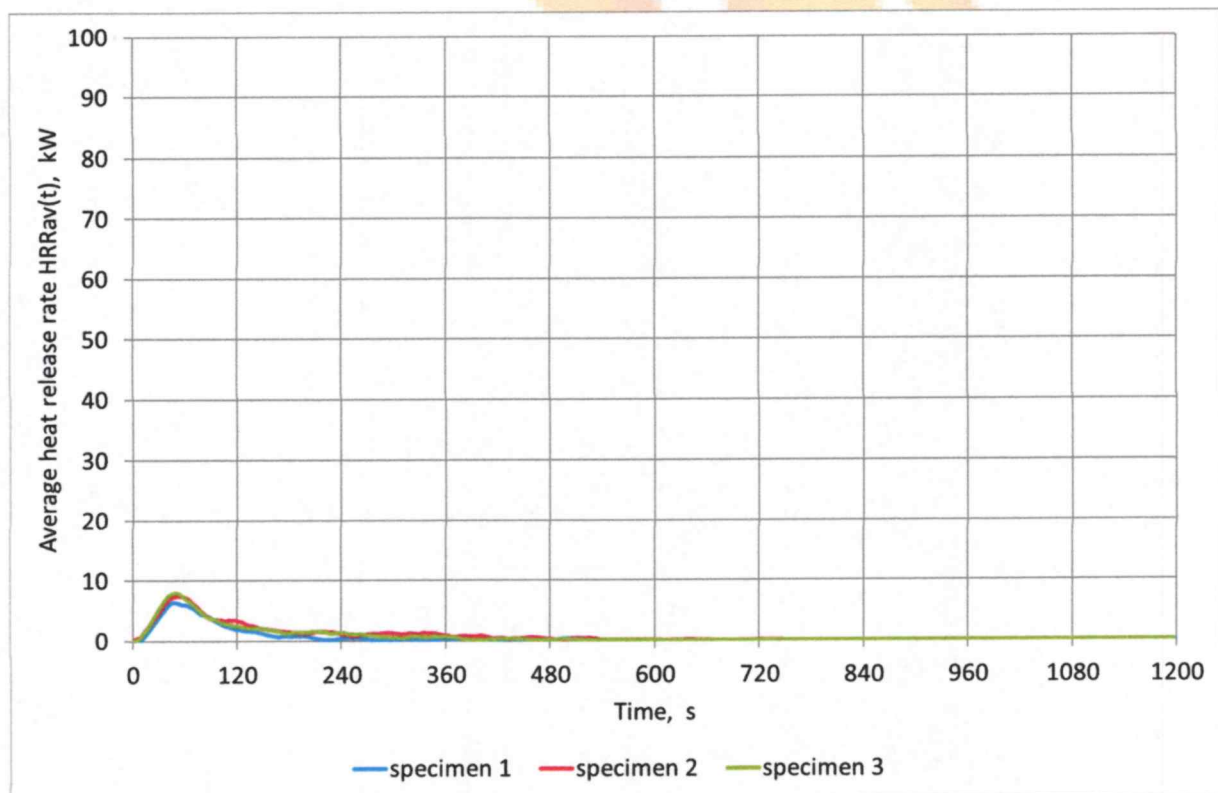


Figure 1.1. Average heat release rate HRR_{av}(t), kW

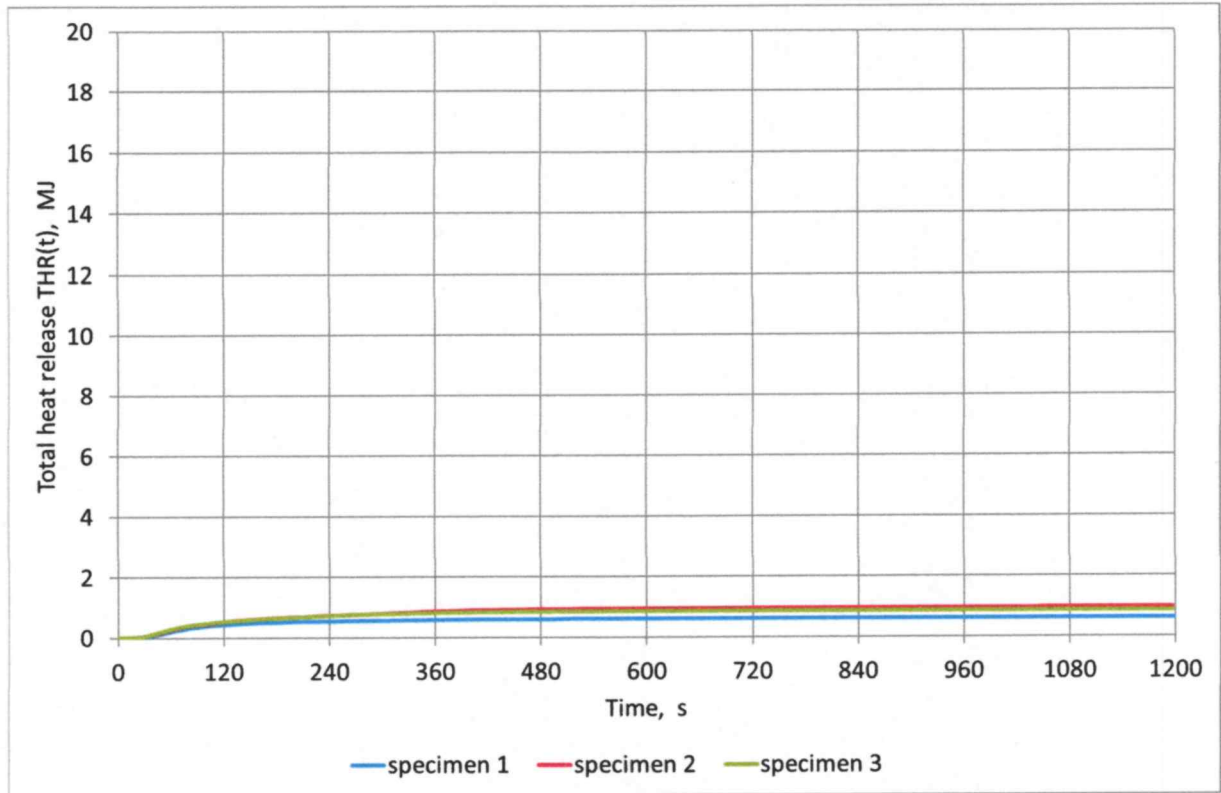


Figure 1.2. Total heat release THR(t), MJ

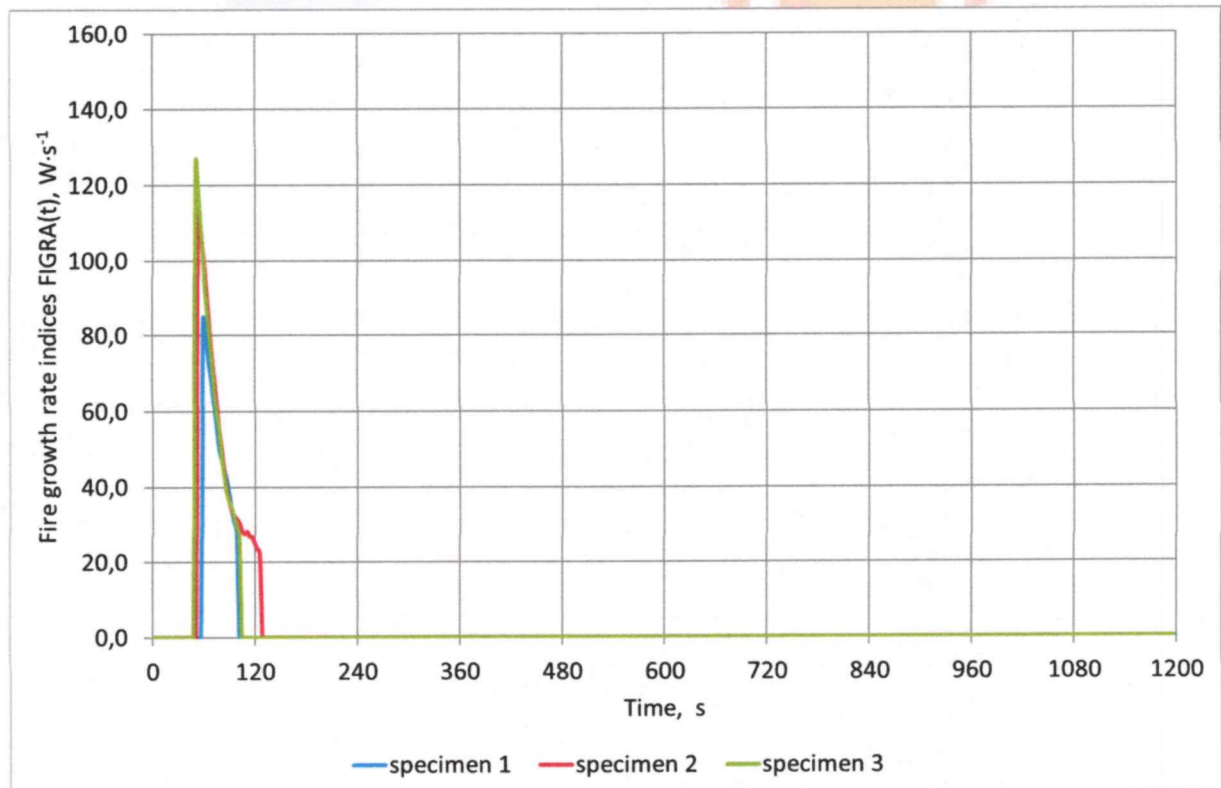


Figure 1.3. Fire growth rate index FIGRA(t), W·s⁻¹

1.2. Smoke production rate

Name of measured quantity	Unit	Specimen			Average	Standard deviation
		1	2	3		
Maximum light attenuation	%	7,9	9,3	8,6	8,6	0,7
Max. smoke production rate SPR	$m^2 \cdot s^{-1}$	0,1	0,1	0,1	0,1	0,0
Total smoke production - TSP	m^2	56	74	60	64	10
Total smoke production in the first 600 s - TSP _{600s}	m^2	34	44	37	38	5
Smoke growth rate index SMOGRA	$m^2 \cdot s^{-2}$	10	13	10	11	2

Remarks: none.

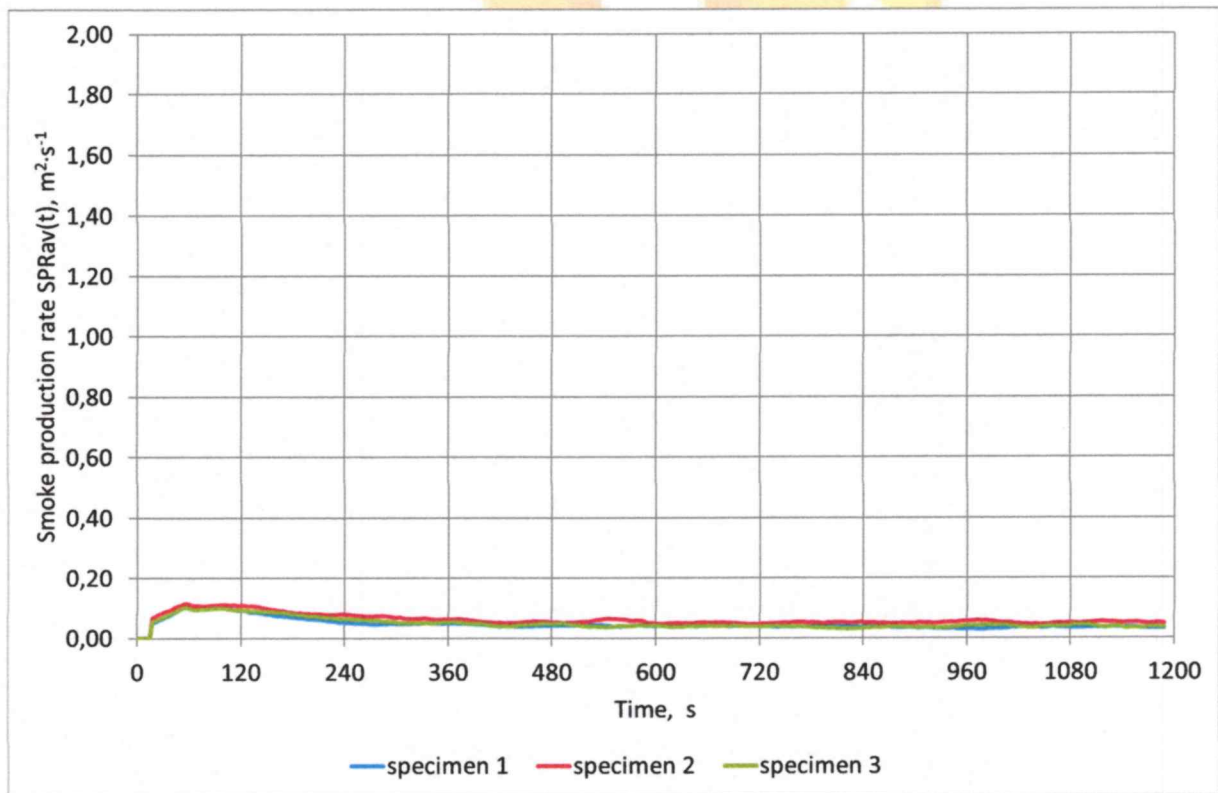


Figure 1.4. Smoke production rate $SPR_{av}(t)$, $m^2 \cdot s^{-1}$

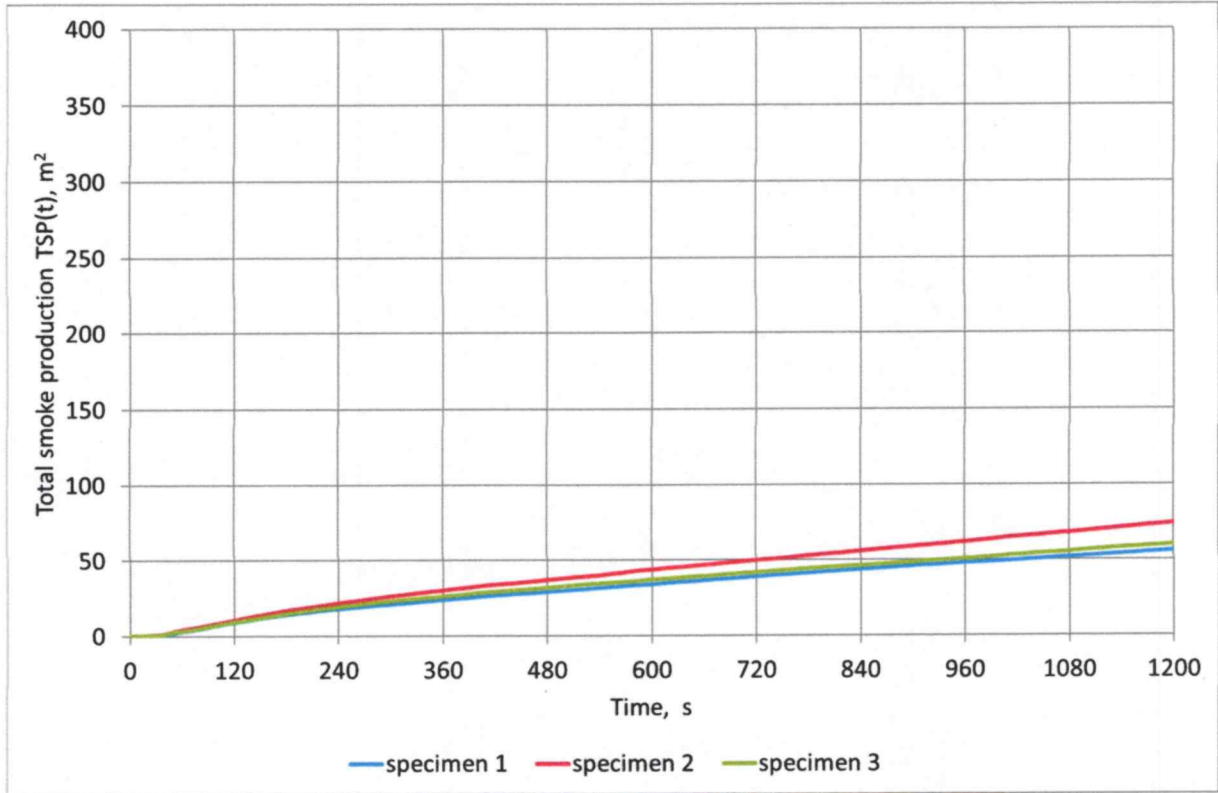


Figure 1.5. Total smoke production TSP(t), m²

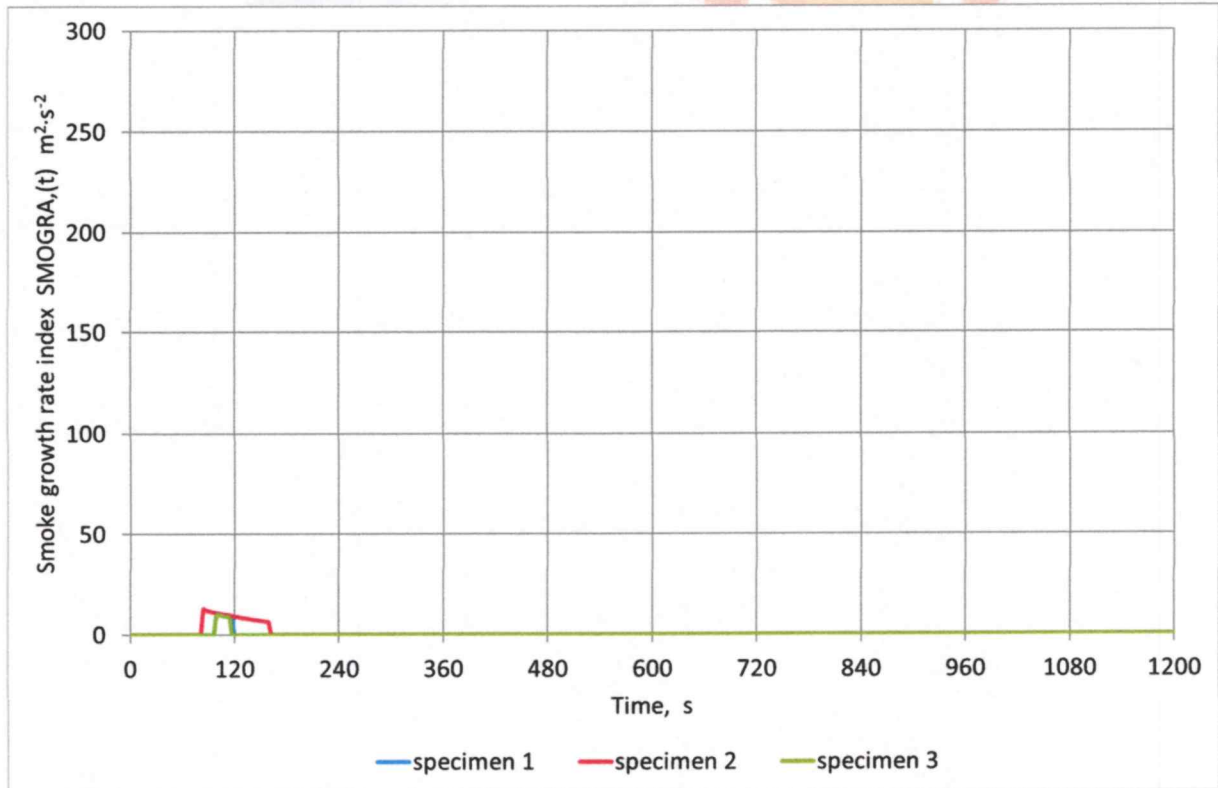


Figure 1.6. Smoke growth rate index SMOGRA(t), m²·s⁻²

1.3. Lateral flame spread on the long specimen wing and flaming particles or droplets

Name of measured quantity	Unit	Specimen		
		1	2	3
Lateral flame spread on the long specimen wing LFS < edge	YES/NO	YES	YES	YES
Flaming particles or droplets	YES/NO time, s	NO	NO	NO

1.4. Appearance of the specimen

Specimen 1



Specimen 2



Specimen 3



2. Ignitability of products subjected do direct impingement of flame according to PN-EN ISO 11925-2

2.1. Surface ignition

Exposure time of pilot burner flame - 30 s

Name of measured quantity	Unit	Specimen no./Test direction						Final result
		length direction			cross direction			
		1	2	3	4	5	6	
Ignition of specimen	YES/NO	NO	NO	NO	-	-	-	NO
Ignition of paper	YES/NO	NO	NO	NO	-	-	-	NO
Flame spread > 150 mm	YES/NO	NO	NO	NO	-	-	-	NO
Time of arrival of the flame front 150 mm	s	-	-	-	-	-	-	-

2.2. Edge ignition

Exposure time of pilot burner flame - 30 s

Name of measured quantity	Unit	Specimen no./Test direction						Final result
		length direction			length direction			
		1	2	3	4	5	6	
Ignition of specimen	YES/NO	NO	NO	NO	-	-	-	NO
Ignition of paper	YES/NO	NO	NO	NO	-	-	-	NO
Flame spread > 150 mm	YES/NO	NO	NO	NO	-	-	-	NO
Time of arrival of the flame front 150 mm	s	-	-	-	-	-	-	-

Remarks: none.



View of the samples after the test.

3. Final findings

Test method	Parameter/Unit	Measured value	Critical value	Classification
PN-EN 13823	FIGRA, W/s	108	≤ 120	B
	THR _{600s} , MJ	0,8	≤ 7,5	
	LFS < edge	YES	YES	
	SMOGRA, m ² ·s ⁻²	11	≤ 30	s1
	TSP600s, m ²	38	≤ 50	
	Flaming particles or droplets, time s	NO	NO	d0
PN-EN ISO 11925-2 Exposure time 30 s	Flame spread > 150 mm in 60 s, mm	NO	NO	-
	Ignition of paper	NO	NO	no d2

The tested product meets the requirements of **B-s1, d0** class according to EN 13501-1:2018

4. Remaining required information with norm

Date of receipt of samples: 16.08.2021

Sampling: sponsor took and delivered samples.

Description of the samples: white self-adhesive foil, thickness of 0,1 mm, glued to steel backing, thickness of 0,8 mm. Total thickness 0,9 mm and weight per unit area 6,4 kg/m². 4 samples dimensions of 1500x1000 mm, 4 samples dimensions of 1500x500 mm, 4 samples dimensions of 230-237x1517 mm and 12 samples dimensions of 250x90 mm were delivered by the sponsor. Laboratory prepared samples for the test.



Conditioning of specimens: constant mass at a temperature of 23±2 °C, and relative humidity of 50±5 %.

Description of the substrate and fixing to the substrate: the samples were tested without an additional undercoat, with an air gap.

Declarations:

1. The test results relate to the behaviour of the test specimens under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the products in use.
2. The information provided on the first page of the report concerning the scope of research and identification of the tested object/objects were provided by the Sponsor.

Operator:


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mgr inż. Andrzej Sychta

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dr inż. Krzysztof Sychta

Date and place of test : 31.08 and 01.09.2021, Police