

TEST REPORT

Order no: 16.06.2016

Signature : SL/Z-119/PN13823/154a/2016

Police, 04.07.2016

Test methods:

1. PN-EN 13823+A1:2014. Reaction to fire tests of building products – Building products excluding floorings exposed to the thermal attack by a single burning item.
2. PN-EN ISO 11925-2:2010. 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 PN-EN 13501-1+A1:2010.

Sponsor: Media Ikonos Sp. z o.o.
ul. Goławicka 2D
45-446 Opole
Poland

Material: Self-adhesive film for large format printing
Ikonos Profiflex PRO GPT FX 100+

Composition: Self-adhesive material designed for large format printing, consisting of PVC film with permanent transparent polyacrylate adhesive and backing paper

Manufacturer/supplier:	Media Ikonos Sp. z o.o.	Atrium Centrum Ploterowe Sp. z o.o.
	ul. Goławicka 2D	ul. Goławicka 2D
	45-446 Opole	45-446 Opole
	Poland	Poland

Assessment: The tested product meets the requirements of B-s1,d0 class according to PN-EN 13501-1+A1:2010.

The reprint and the copying: only with the agreement of Media Ikonos Sp. z o.o.

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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.

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

1. Reaction to fire tests of building products according to PN-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
Maximum heat release rate	kW	7,6	8,8	6,6	7,6	1,1
Total heat release THR	MJ	1,6	2,1	0,7	1,5	0,7
Total heat release in the first 600 s – THR_{600s}	MJ	1,0	1,5	0,6	1,0	0,5
Fire growth rate index $FIGRA_{0,2MJ}$	$W \cdot s^{-1}$	96	119	58	91	31
Fire growth rate index $FIGRA_{0,4MJ}$	$W \cdot s^{-1}$	32	58	0	30	29

Remarks: none.

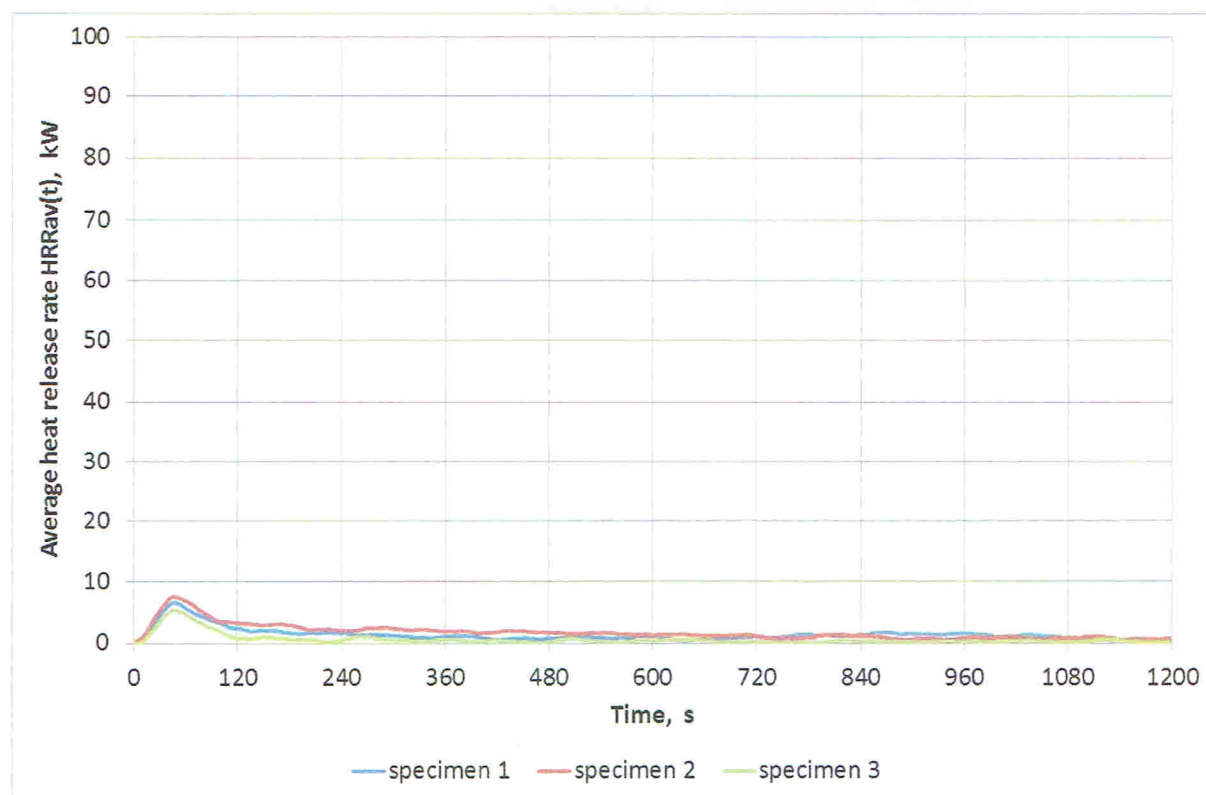


Figure 1.1. Average heat release rate $HRR_{av}(t)$, kW

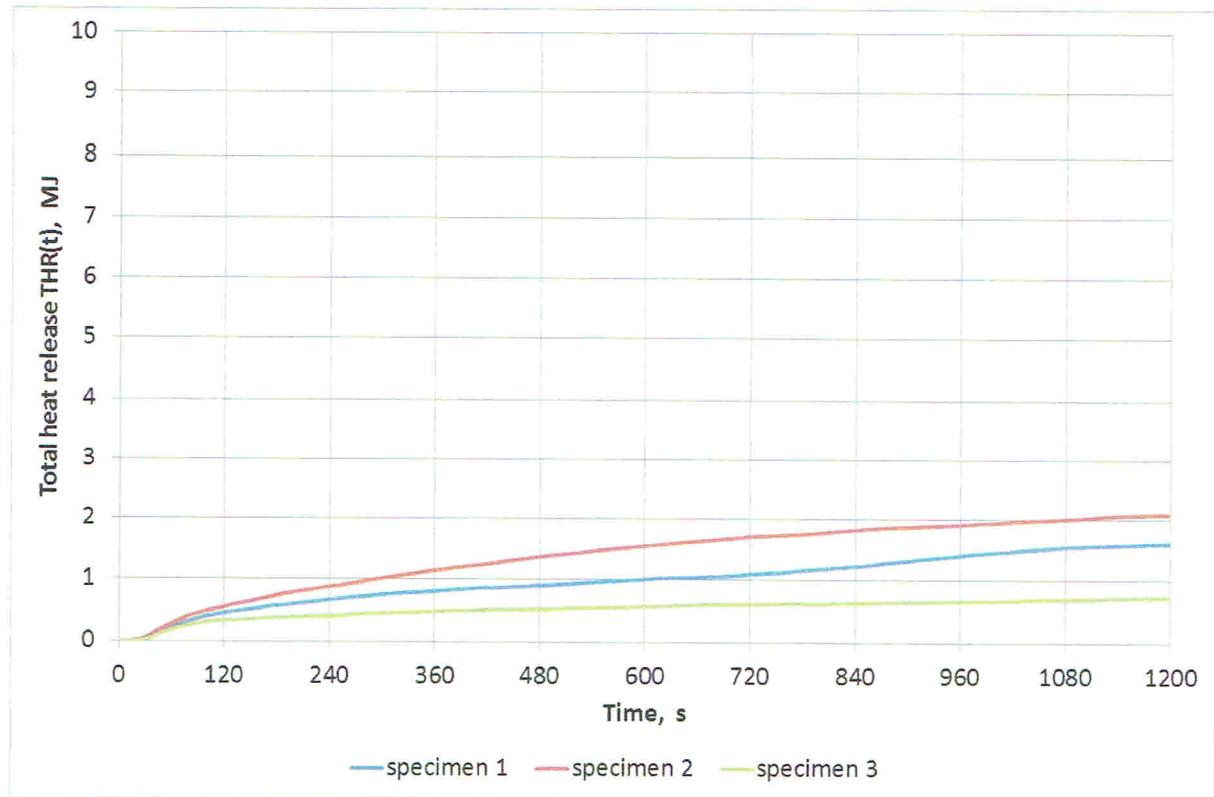


Figure 1.2. Total heat release $THR(t)$, MJ

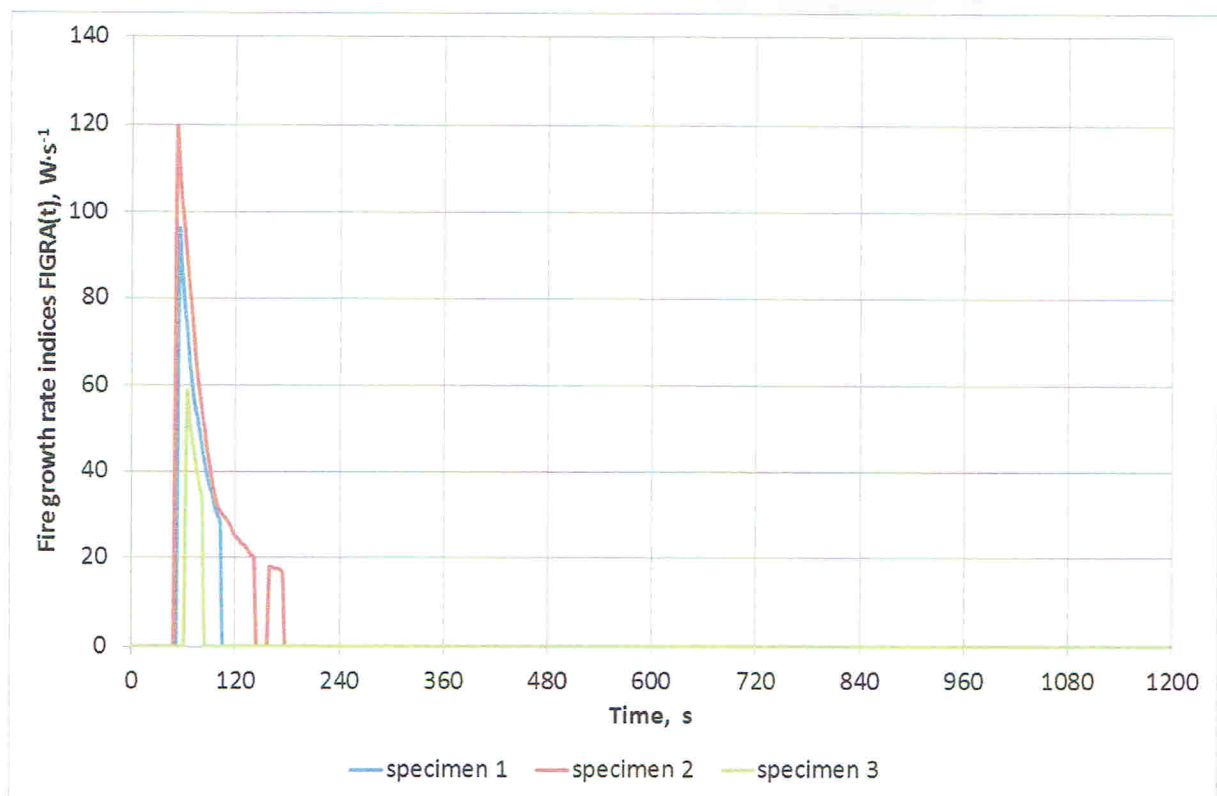


Figure 1.3. Fire growth rate index $FIGRA(t)$, $W \cdot s^{-1}$

1.2. Smoke production rate

Name of measured quantity	Unit	Specimen			Average	Standard deviation
		1	2	3		
Maximum light attenuation	%	13,2	15,6	11,1	13,3	2,3
Max. smoke production rate SPR	$\text{m}^2 \cdot \text{s}^{-1}$	0,3	0,3	0,2	0,3	0,1
Total smoke production - TSP	m^2	66	63	50	60	9
Total smoke production in the first 600 s - $\text{TSP}_{600\text{s}}$	m^2	42	40	35	39	4
Smoke growth rate index SMOGRA	$\text{m}^2 \cdot \text{s}^{-2}$	15	17	17	16	1

Remarks: none.

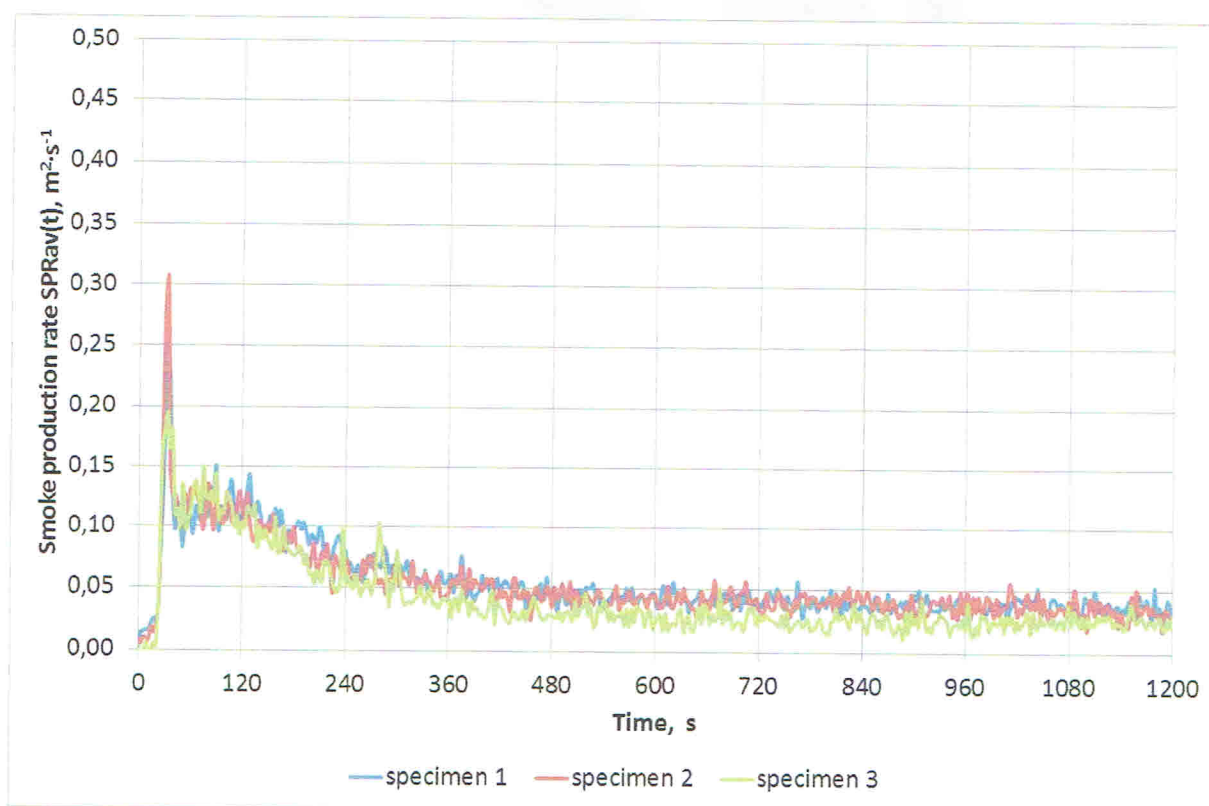


Figure 1.4. Smoke production rate $\text{SPR}_{\text{av}}(t)$, $\text{m}^2 \cdot \text{s}^{-1}$

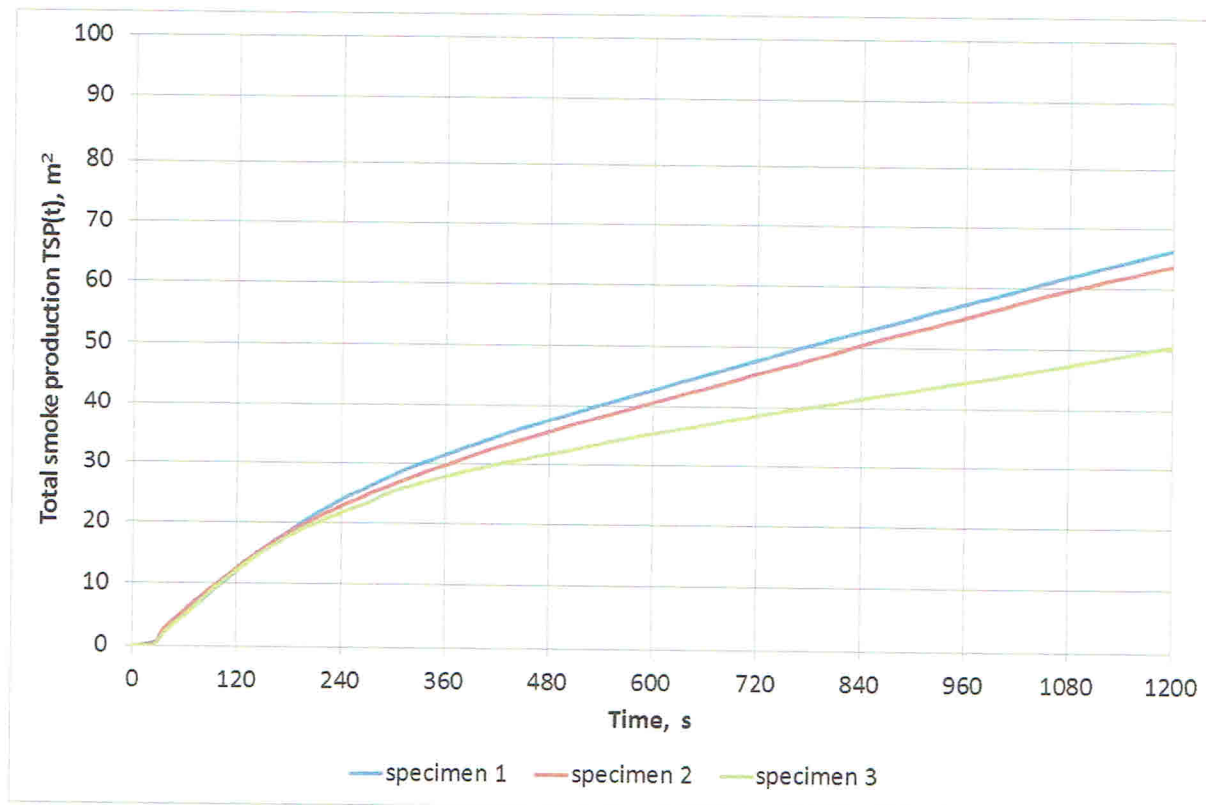


Figure 1.5. Total smoke production TSP(t), m²

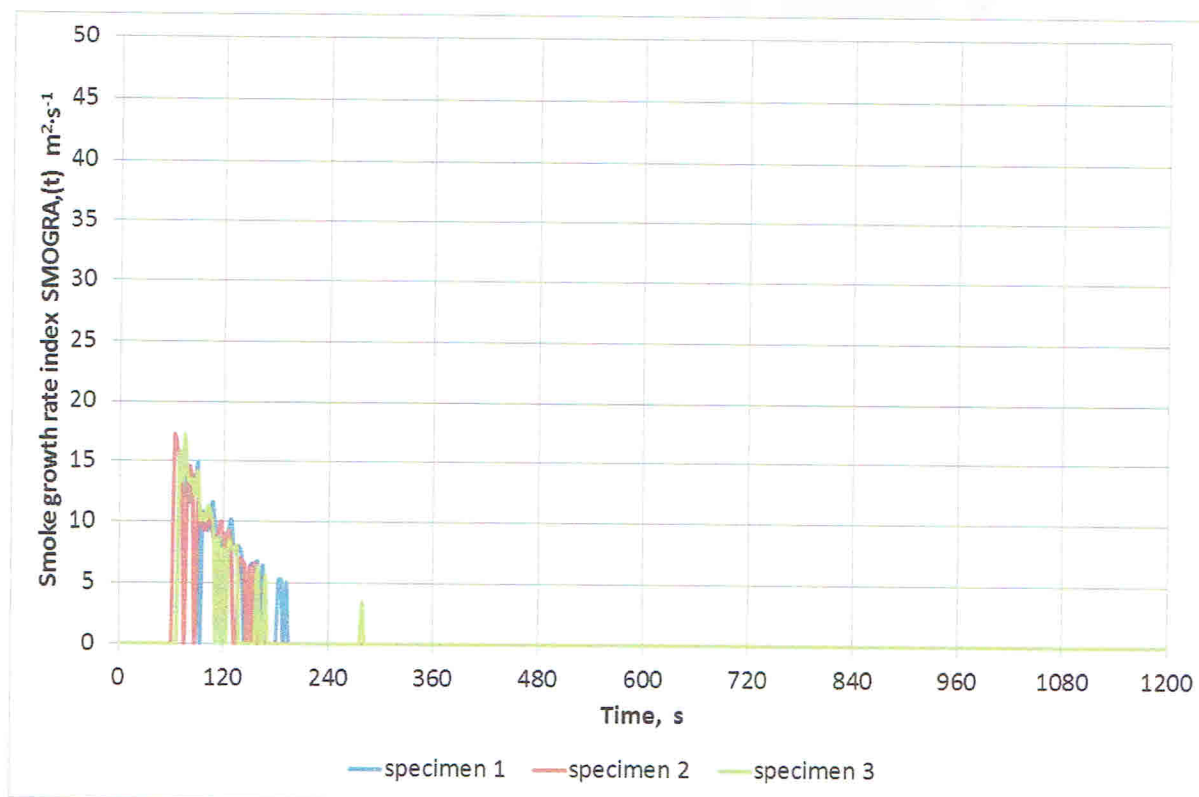


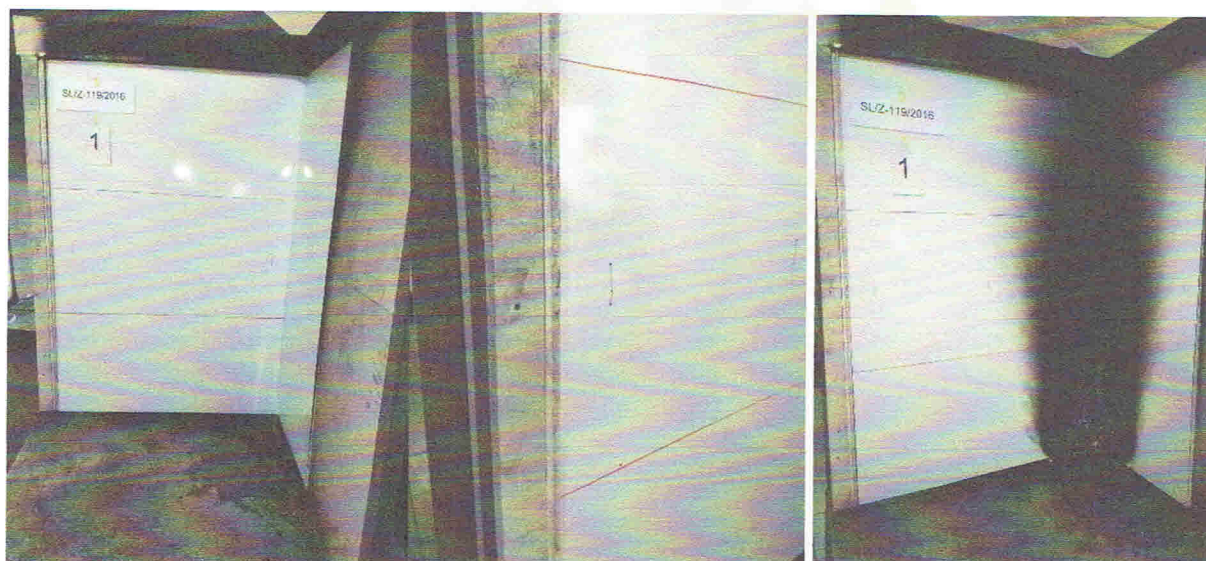
Figure 1.6. Smoke growth rate index SMOGRA(t), m²·s⁻²

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	NO	NO	NO
Flaming particles or droplets	YES/NO time, s	NO	NO	NO

1.4. Appearance of the specimen

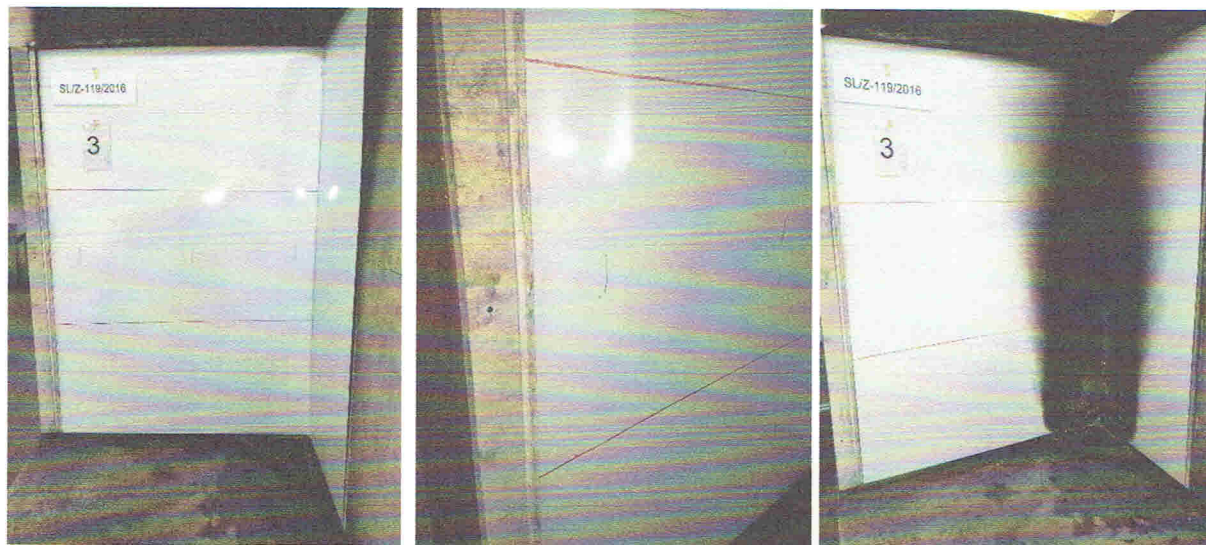
Specimen 1



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
		lenght 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
		lenght direction			lenght 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.

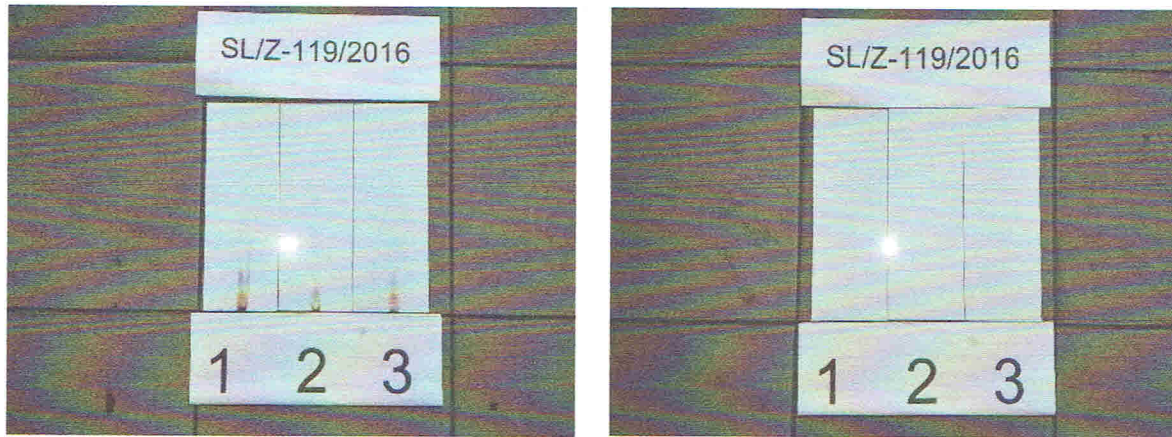


Figure. 2.1. View of the samples after the tests.

3. Remaining required information with norm

Date of receipt of samples: 28.06.2016

System of the sampling: sponsor took and delivered samples.

Description of the samples: White self-adhesive film thicknesses 0.1 mm, glued to steel plate thicknesses 0,8 mm. 4 samples dimensions of 1500x1000 mm, 4 samples dimensions of 1500x500 mm and 12 samples dimensions of 250x90 mm were delivered by the sponsor.

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: White self-adhesive film thicknesses 0.1 mm, glued to the standard steel substrate of classes A1 according to EN 13238: 2010 section 5.3 (steel plate, density of 7850 ± 50 kg / m³ and thickness $0,8 \pm 0,2$ mm) metal staples.

4. Final findings

Test method	Parameter/Unit	Measured value	Critical value	Classification
PN-EN 13823	FIGRA, W/s	91	≤ 120	B
	THR _{600s} , MJ	1,0	$\leq 7,5$	
	LFS < edge	YES	YES	
	SMOGRA, m ² ·s ⁻²	16	≤ 30	s1
	TSP600s, m ²	39	≤ 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+A1:2010

Declaring: The test results rate 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.

Operator:

dr hab. Zygmunt Sychta

mgr inż. Andrzej Sychta

Signature:

KIEROWNIK TECHNICZNY
dr inż. Krzysztof Sychta

Date and place of test : 01.07.2016, Police

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