

Test laboratory for the fire behavior of building materials, Dipl.-Ing. (FH) Andreas Hoch  
Testing, supervising and certifying body, authorized by the building supervision authority

# TEST REPORT

## PZ-Hoch-250334

for the proof of fire behaviour according to DIN 4102, part 1

Translation of the German test report – no guarantee for translation of technical terms

<b>company</b>	<b>Neschen Coating GmbH</b> Hans-Neschen-Straße 1 D-31675 Bückeburg
<b>description of samples</b>	white self-adhesive film, consisting of plastic, glued on aluminium panels
<b>name of the material</b>	„print easy GR“, „print easy MR“
<b>sampling</b>	by the company itself
<b>content of request</b>	Proof of flammability to classify building materials to class B1 ("schwerentflammbar") according to DIN 4102, part 1
<b>validity of test report</b>	31.01.2026
<b>result</b>	<b>The examined products meet the requirements of class B1 for "schwerentflammbare" (hardly flammable) building materials according to DIN 4102, part 1 (May 1998), if glued on metallic substrates with a density of <math>\geq 2.025 \text{ kg/m}^3</math>, a melting point of <math>\geq 500^\circ\text{C}</math> and a thickness of <math>\geq 0,8\text{mm}</math>.</b>

This test report includes 4 pages and 5 enclosures.

Remark: If the building material mentioned above is not used as a product according to MBO § 2, Abs. 9, Ziffer 1, there is no need for a general building supervisory test report.

This test report is not valid if the examined building material is used as product as defined by State Building Prescriptions (MBO § 17, Abs. 3).

This test report does not replace an eventually necessary proof of applicability concerning building supervisory or building laws as defined by State Building Prescriptions. This has to be certified instead by:

- "allgemeine bauaufsichtliche Zulassung" (General Building Inspectorate Approval) or by
- "allgemeines bauaufsichtliches Prüfzeugnis" (General Building Inspectorate Certificate) or by
- "Zustimmung im Einzelfall" (Exceptional Approval)

This test report can underlie building supervisory procedures

- for regular building products for the prescribed proofs of conformity
- for irregular building products for the required proofs of applicability.

Without written consent of the test laboratory, this test report may only be published or duplicated during its denoted period of validity, providing that no changes to appearance or content are made.

## **1. Description of test material in condition as delivered**

- material I    “print easy GR”**  
white, gloss self-adhesive plastic film with adhesive on one side  
and a protective paper  
characteristic values determined by the test laboratory:  
thickness adhesive film:                      about 0,12 mm  
thickness protective paper:                  about 0,13 mm  
total area weight                                about 278 g/m<sup>2</sup>
- material II    “print easy MR”**  
white, matt self-adhesive plastic film with adhesive on one side  
and a protective foil  
characteristic values determined by the test laboratory:  
thickness adhesive film:                      about 0,11 mm  
thickness protective paper:                  about 0,13 mm  
total area weight                                about 271 g/m<sup>2</sup>

The testing laboratory is not provided with further details concerning composition of the tested building materials. Samples are deposited.

## **2. Preparation of samples**

Samples with a size of 1000 mm height and 190 mm width where cut from the material for fire testing. The samples were kept in climate chamber 23/50 until they reached constant weight. The tests underlying this report were carried out by FIRELABS, Borkheide.

- 3. Arrangement of samples**                      mounting: glued on aluminium panels
- |   |                    |
|---|--------------------|
| #734920-001 flaming in machine direction    | <b>material I</b>  |
| #734920-002 flaming in transverse direction | <b>material I</b>  |
| #734920-003 flaming in machine direction    | <b>material II</b> |
| #734920-004 flaming in transverse direction | <b>material II</b> |

**Date of test**    November/December in 2020

**5. Results** The test has been performed according to DIN 4102 (Mai 1998)

line no.	Measurement	Result with the tested specimen				Dim.
	Test number	#734920-001	#734920-002	#734920-003	#734920-004	
	flaming direction	machine	transverse	machine	transverse	
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	7	7	7	7	
2	Maximum flame height	50	50	50	50	cm
3	Time <sup>1)</sup>	01:00	01:00	01:00	01:00	min:s
4	Burn-through / melting <sup>1)</sup>	-/-	-/-	-/-	-/-	min:s
5	Observations on the back side					
6	Flames / Glowing <sup>1)</sup>	-/-	-/-	-/-	-/-	min:s
6	Change of colour <sup>1)</sup>	03:00	03:00	03:00	03:00	min:s
7	Falling of burning droplets <sup>1)</sup>	-/-	./.	./.	./.	
8	sporadic falling of burning droplets <sup>2)</sup>	--	--	--	--	min:s
9	continuous falling of burning droplets <sup>2)</sup>	--	--	--	--	min:s
10	Falling of burning parts <sup>1)</sup>	-/-	./.	./.	./.	min:s
11	sporadic falling of burning parts <sup>2)</sup>	--	--	--	--	
12	continuous falling of burning parts <sup>2)</sup>	--	--	--	--	
13	Burning duration at sieve plate (max.)	-/-	./.	./.	./.	min:s
14	Impairment of burner by material <sup>1)</sup>	-/-	./.	./.	./.	min:s
15	End of burning at the specimen <sup>1)</sup>	10:00	10:00	10:00	10:00	min:s
16	Time of eventually end of test <sup>1)</sup>	-/-	./.	./.	./.	min:s
17	Afterburning after end of test <sup>1)</sup>	-/-	-/-	-/-	-/-	min:s
18	Number of specimen	--	--	--	--	
19	Front side / Rear side of specimen <sup>2)</sup>	--	--	--	--	
20	flame length	--	--	--	--	cm
21	Afterglow after end of test <sup>1)</sup>	-/-	-/-	-/-	-/-	min:s
22	Number of specimen	--	--	--	--	
23	Lower / Upper half of the specimen <sup>2)</sup>	--	--	--	--	
24	Front side / Rear side of specimen <sup>2)</sup>	--	--	--	--	
25	Density of smoke $\leq 400 \% \cdot \text{min}$	16,7	13,9	11,0	11,0	%min
26	$> 400 \% \cdot \text{min}^{4)}$	--	--	--	--	%min
27	Residual lengths: Specimen 1	46	51	48	45	cm
	individual values <sup>3)</sup> Specimen 2	42	46	49	48	cm
	Specimen 3	46	47	45	47	cm
	Specimen 4	46	52	47	47	cm
28	Average residual length <sup>3)</sup>	45	49	47	46	cm
29	Maximum smoke temperature	114	112	115	114	°C
30	Time <sup>1)</sup>	09:50	09:16	09:40	09:56	min:s
31	Diagram and Photo of specimen in enclosure no.	1	2	3	4	
32	Remarks: - none -					

<sup>1)</sup> indication of times relative to beginning of test

<sup>2)</sup> checked if applicable

<sup>3)</sup> indication of carrier/foam layer separated in case of fire-proofing agents

<sup>4)</sup> very strong development of smoke

## 6. Explanations concerning the testing procedure

The remaining tests could be skipped as the residual lengths exceeded 45 cm.

## 7. Summary of results and additional establishments to Fire Behaviour

lineo	Measurement	Messwert für Probekörper				dimension
	test-no.	#734920-001	#734920-002	#734920-003	#734920-004	
Beflam-mung	direction	transverse	machine	transverse	machine	
1	residual length	45	49	47	46	cm
2	max. smoke temperature	114	112	115	114	°C
3	integral of smoke density	16,7	13,9	11,0	11,0	%min
4	remarks: none					

According to DIN 4102, pt. 1, hardly flammable ("schwerentflammbare") building materials must meet the requirements of class B2.

After performing additional tests in the ignitability apparatus, this could be verified (encl. 5).

## 8. Special remarks

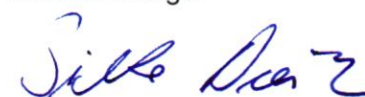
- This report is only valid for the material as described in paragraph 1. In combination with other materials or with additional coatings or primers etc., the burning behaviour may differ.
- This test report is not valid for the exposure to outdoor climate conditions, washing or cleaning with chemicals.
- This test report is not valid if the material is used as a building product in the sense of the State Building Regulations ("Landesbauordnungen", MBO § 17, par. 3).
- This test report is no substitute for a General Building Inspectorate Certificate.
- This test report is granted without prejudice to the rights of third parties, in particular private proprietary rights.
- For legal interests, only the German original version is relevant.
- In General Building Inspectorates procedures, this test report can be used for
  - regular building materials for the required proof of accordance
  - for not regular building materials for the required proof of applicability

## 9. Validity

This test report is valid until the denoted date on page 1. The test report becomes invalid in case the standards on which these tests are based are changed.

Fladungen, 25.03.2025

Clerk in charge:

  
(Silke Biendara)

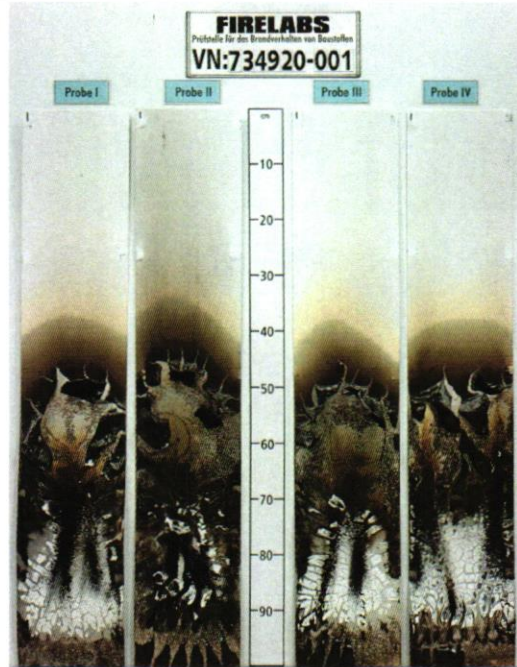


Head of test laboratory:

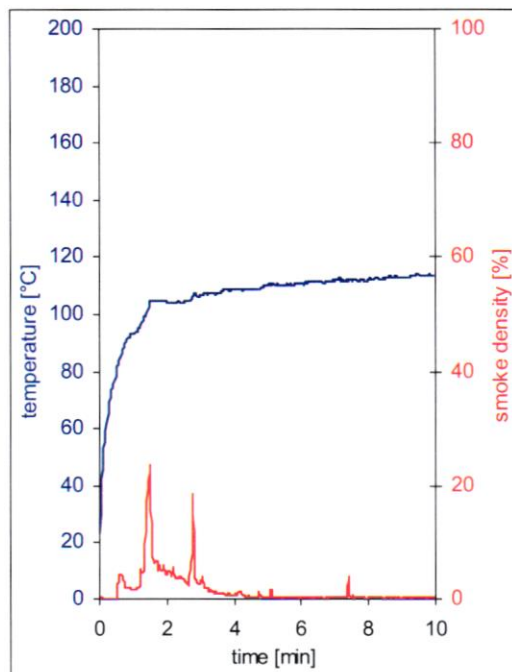
  
(Dipl.-Ing. (FH) Andreas Hoch)



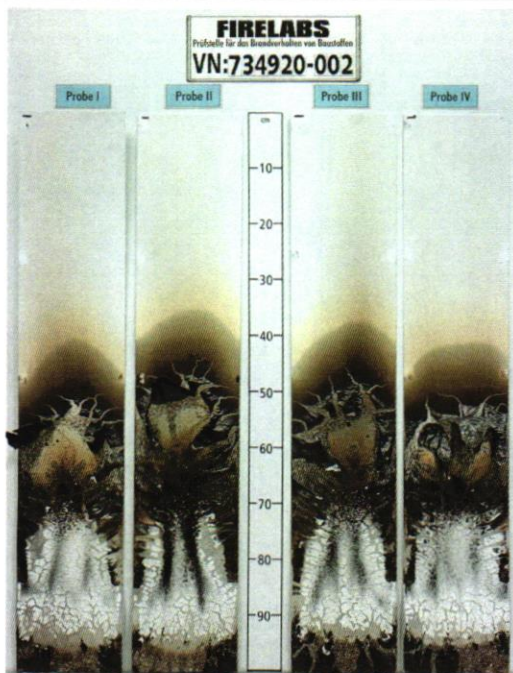
**fire shaft test #734920-001**



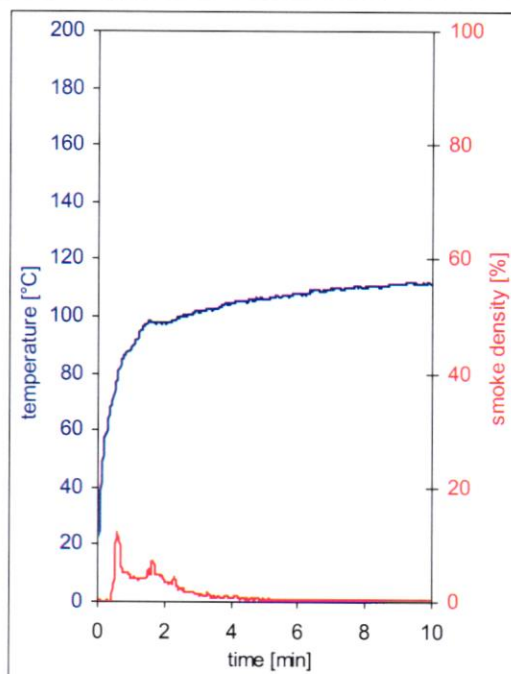
**measurement**



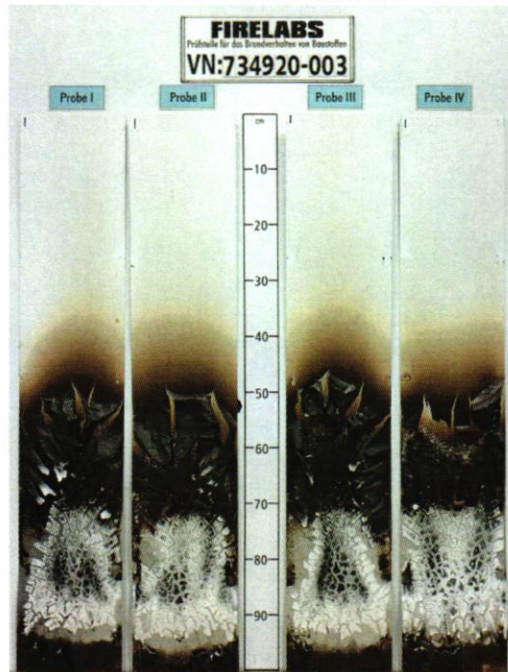
**fire shaft test #734920-002**



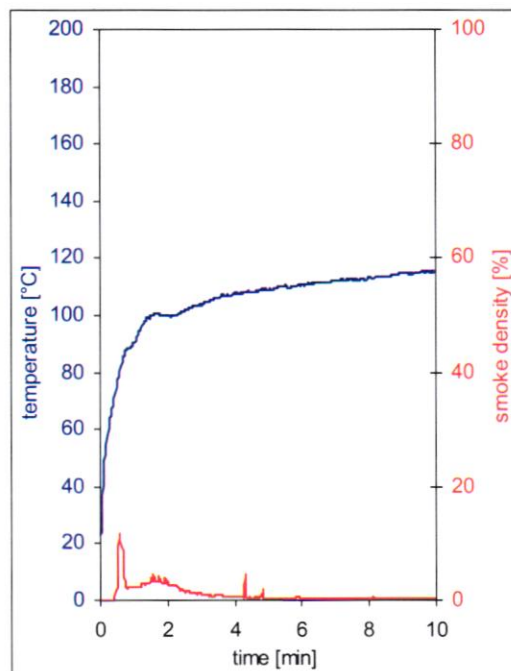
**measurement**



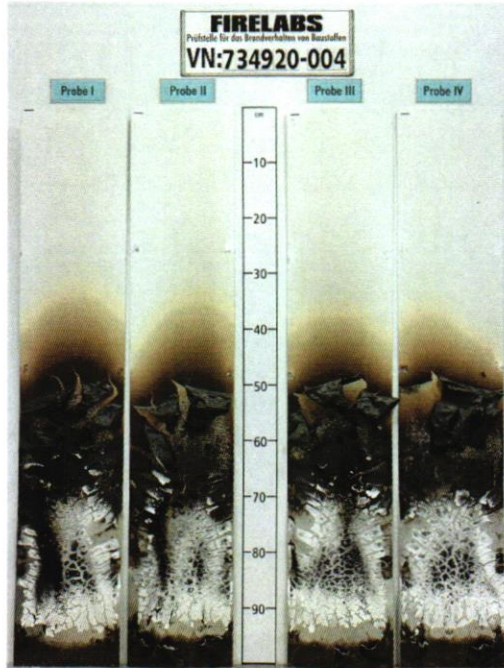
**fire shaft test #734920-003**



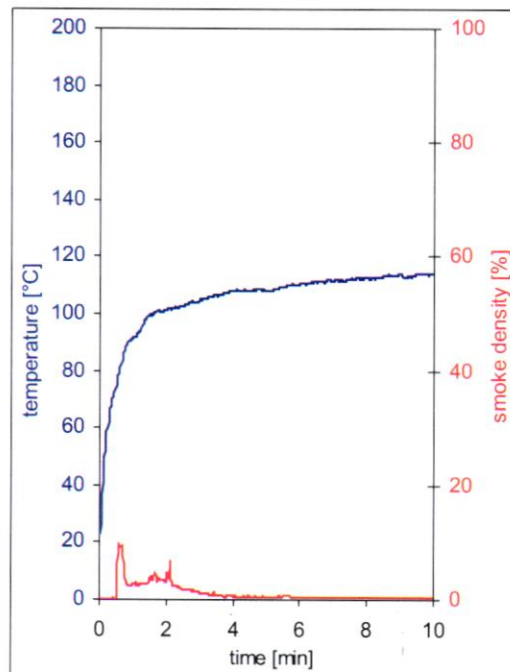
**measurement**



**fire shaft test #734920-004**



**measurement**





**Test for normal flammability**  
**classifying B2 according to DIN 4102**

**1. Description of test material in condition as delivered** cf. page 2

**2. Preparation of samples**

Samples for the ignitability apparatus were cut from the sample. The samples were kept in a climate 23/50 until they reached constant weight.

**3. Arrangement of samples**

glued on aluminium panels

**4. Date of test** November/December in 2020

**5. Results**

material I	longitudinal						transversal						dim.	requirements
Sample-No.	1	2	3	4	5	6	1	2	3	4	5	6	-	-
Ignition of the sample	J.	1	1	1	J.	J.	J.	J.	1	1	J.	J.	s	-
Maximum flame height	J.	< 1	< 1	< 1	J.	J.	J.	J.	< 1	< 1	J.	J.	cm	-
Time of the maximum	J.	1	1	1	J.	J.	J.	J.	1	1	J.	J.	-	-
Flame tip has reached the 150 mm mark	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	s	≥ 20
Flames extinguished	J.	16	16	16	J.	J.	J.	J.	16	16	J.	J.	s	-
Ignition of filter paper	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	s	<sup>1)</sup>
Smoke density (visual)	very low						very low						-	J.
Afterburning time	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	s	-
View of the samples after the test (20 seconds after exposure the flame): The specimens were superficially destroyed in the area of the flame impingement point up to a height of about 0.3 cm and a width of about 1 cm, above approx. 2 cm brown discoloured.														

Samples 1-5: edge flame exposure  
Samples 6: surface flame exposure

material II	longitudinal						transversal						dim.	requirements
Sample-No.	1	2	3	-	-	-	1	2	3	-	-	-	-	-
Ignition of the sample	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	s	-
Maximum flame height	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	cm	-
Time of the maximum	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	-	-
Flame tip has reached the 150 mm mark	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	s	≥ 20
Flames extinguished	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	s	-
Ignition of filter paper	J.	J.	J.	-	-	-	J.	J.	J.	-	-	-	s	<sup>1)</sup>
Smoke density (visual)	very low						very low						-	J.
Afterburning time	J.	J.	-	-	-	-	J.	J.	-	-	-	-	s	-
View of the samples after the test (20 seconds after exposure the flame): None of the samples showed ignition, no visible change.														

Samples 1, 2: edge flame exposure  
Samples 3: surface flame exposure

<sup>1)</sup> No ignition within 20 seconds  
J. Not occurred  
dim. Dimension  
Indication of time: from the beginning of testing procedure  
Indication of measurements: from reference line of the flame

**6. Remarks and explanations to the testing procedure** - none -

**7. Opinion concerning the dropping of burning material**

The test for normal flammability shows no dropping burning material.

----- End of enclosures -----