

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-211346-3

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

company	Eikon Ltd 38 Port Royal Avenue Lancaster LA1 5QP United Kingdom
description of samples	polyester fabric with PVC coating
name of the material	„IP 2305“
sampling	by the company itself
content of request	Proof of flammability to classify building materials to class B1 (“schwerentflammbar”) according to DIN 4102, part 1
validity of test report	31.10.2026
result	The examined product meets in the colours white and white/blue suspended freely or with distance of >40 mm to same or other plain materials the requirements of class B1 for hardly flammable (“schwerentflammbare”) building materials according to DIN 4102, pt. 1 (May 1998).

This test report includes 4 pages and 7 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

PN 34130 „IP 2305“

polyester fabric with PVC coating, white
both sides equal

characteristic values determined by the test laboratory:

thickness: about 0,32 mm

area weight: about 376 g/m²

PN 34131 Fehler! Verweisquelle konnte nicht gefunden werden.

polyester fabric with PVC coating, white/blue

side A: white

side B: light blue

characteristic values determined by the test laboratory:

thickness: about 0,31 mm

area weight: about 377 g/m²

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.

3. Arrangement of samples

mounting: freely suspended

#4972	flaming side A in warp direction	PN 34130	white
#4973	flaming side B in warp direction	PN 34130	white
#4975	flaming side A in weft direction	PN 34130	white
#4976	flaming side A in warp direction	PN 34130	white
#4977	flaming side A in warp direction	PN 34131	white/blue

4. Date of test CW 43/44 in 2021

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

line no.	Measurement	Result with the tested specimen					dim ensi on	
		#4972	#4973	#4975	#4976	#4977		
	Test number	#4972	#4973	#4975	#4976	#4977		
	flaming direction	warp	warp	weft	warp	warp		
	side	A	B	A	A	A		
	Colour of the fabric	white				white/blue		
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	1	1	1	1	1		
2	Maximum flame height	90	60	60	60	90	cm	
3	Time ¹⁾	0:20	0:13	0:14	0:10	0:20	min:s	
4	Burn-through / melting ¹⁾	0:05	0:05	0:05	0:05	0:05	min:s	
5	Observations on the back side							
6	Flames / Glowing ¹⁾	-/-	./.	./.	-/-	-/-	min:s	
6	Change of colour ¹⁾	-/-	./.	./.	-/-	-/-	min:s	
7	Falling of burning droplets ¹⁾	-/-	./.	./.	-/-	-/-		
8	sporadic falling of burning droplets ²⁾	--	--	--	--	--	min:s	
9	continuous falling of burning droplets ²⁾	--	--	--	--	--	min:s	
10	Falling of burning parts ¹⁾	-/-	./.	0:05	-/-	-/-	min:s	
11	sporadic falling of burning parts ²⁾	--	--	x	--	--		
12	continuous falling of burning parts ²⁾	--	--	--	--	--		
13	Burning duration at sieve plate (max.)	-/-	./.	./.	-/-	-/-	min:s	
14	Impairment of burner by material ¹⁾	0:30	0:40	./.	0:30	0:30	min:s	
15	End of burning at the specimen ¹⁾	-/-	./.	./.	-/-	-/-	min:s	
16	Time of eventually end of test ¹⁾	-/-	./.	./.	-/-	-/-	min:s	
17	Afterburning after end of test ¹⁾	-/-	-/-	-/-	-/-	-/-	min:s	
18	Number of specimen	--	--	--	--	--		
19	Front side / Rear side of specimen ²⁾	--	--	--	--	--		
20	flame length	--	--	--	--	--	cm	
21	Afterglow after end of test ¹⁾	-/-	-/-	-/-	-/-	-/-	min:s	
22	Number of specimen	--	--	--	--	--		
23	Lower / Upper half of the specimen ²⁾	--	--	--	--	--		
24	Front side / Rear side of specimen ²⁾	--	--	--	--	--		
25	Density of smoke ≤ 400 % * min	39	31	31	33	51	%min	
26	> 400 % * min ⁴⁾	-	-	-	-	-	%min	
27	Residual lengths: individual values ³⁾							
	Specimen 1	18	62	57	57	44	cm	
	Specimen 2	51	52	51	52	17	cm	
	Specimen 3	56	59	53	58	49	cm	
	Specimen 4	40	58	50	54	42	cm	
28	Average residual length ³⁾	41	58	53	55	51	cm	
29	Maximum smoke temperature	125	122	121	120	129	°C	
30	Time ¹⁾	00:18	08:29	09:33	09:33	00:15	min:s	
31	Diagram and Photo of specimen in enclosure no.	1	2	3	4	5		
32	Remarks: - none -							

¹⁾ indication of times relative to beginning of test

²⁾ checked if applicable

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

⁴⁾ 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

lineno	Measurement	Result with the tested specimen					dimension
	test-no.	#4972	#4973	#4975	#4976	#4977	
flaming	side	A	B	A	A	A	cm
	direction	warp	warp	weft	warp	warp	
	colour of the fabric	white				white/blue	
1	residual length	41	58	53	55	51	cm
2	max. smoke temperature	125	122	121	120	129	°C
3	integral of smoke density	39	31	31	33	51	%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. 6).

8. Special remarks

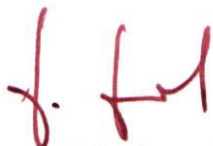
- This report is only valid for the material as described in paragraph 1. In combination with other materials or with additional coatings or primers etc., the burning behaviour may differ.
- This test report is not valid for the exposure to outdoor climate conditions, washing or cleaning with chemicals.
- 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, 18.08.2022

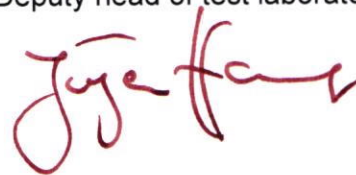
Clerk in charge:



(Dipl.-Ing. (FH) Diana Günzel)



Deputy head of test laboratory:



(Dipl.-Ing. (FH) Jürgen Hammer)

Fire shaft test #4972

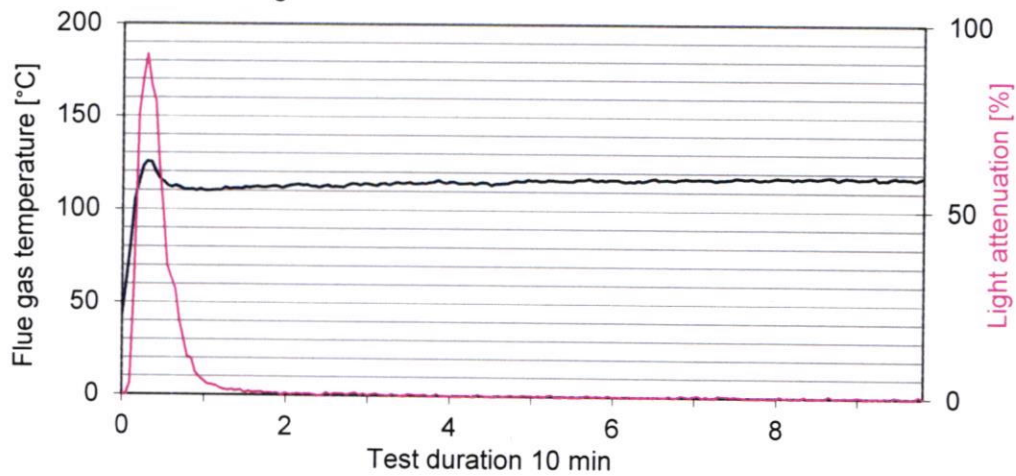


measurement

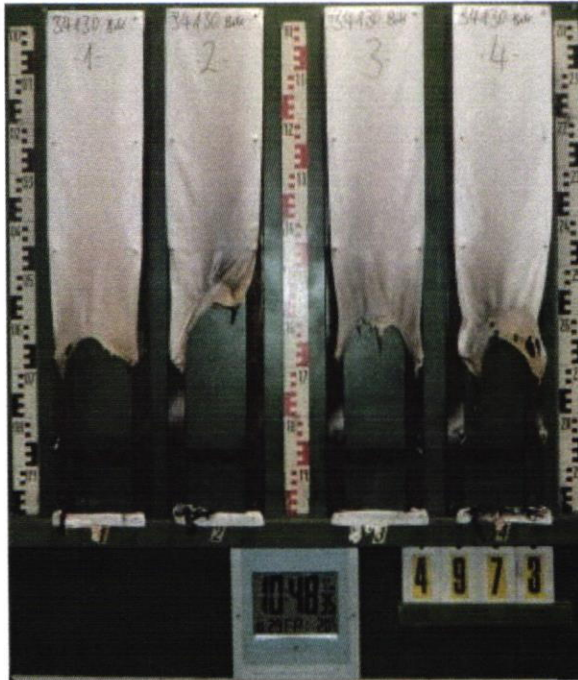
#4972, PN34130: EIKON Ltd, "IP 2305", A + K

Max. flue temperature: 125°C, Smoke density integral: 39%min

Residual length: 41 cm



Fire shaft test #4973

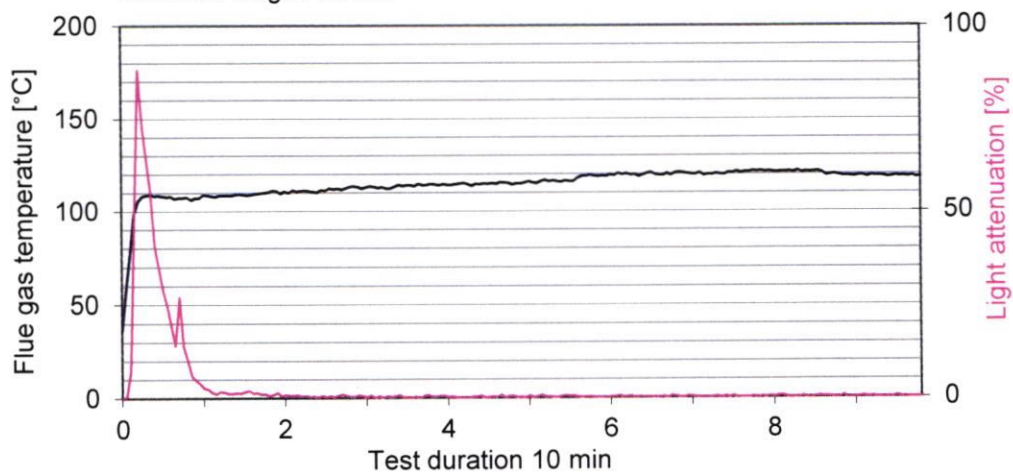


measurement

#4973, PN34130: EIKON Ltd, "IP 2305", B + K

Max. flue gas temperature: 122°C, Smoke density integral: 31%min

Residual length: 58 cm



Fire shaft test #4975

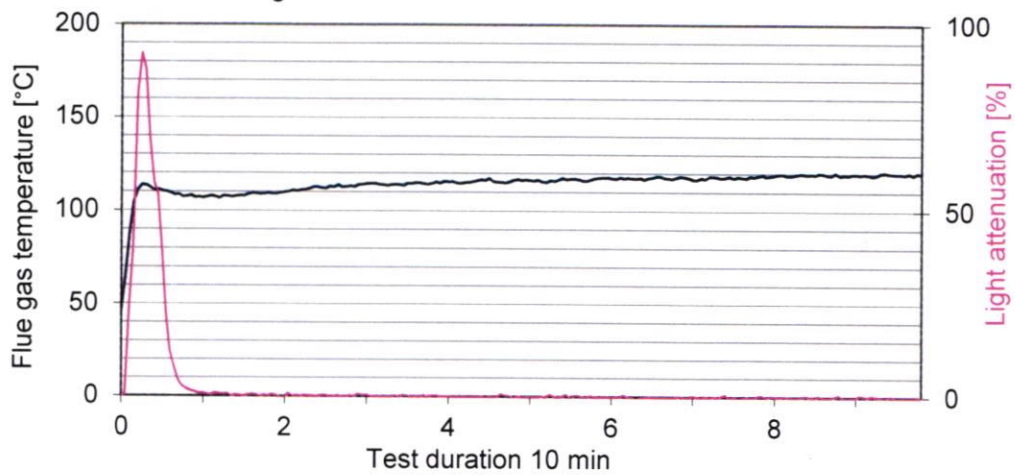


measurement

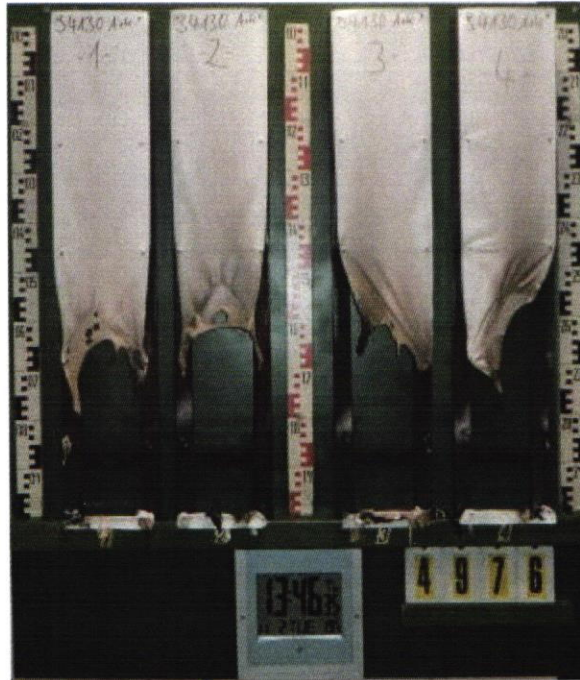
#4975, PN34130: EIKON Ltd, "IP 2305", A + S

Max. flue temperature: 121°C, Smoke density integral: 31%min

Residual length: 53 cm



Fire shaft test #4976

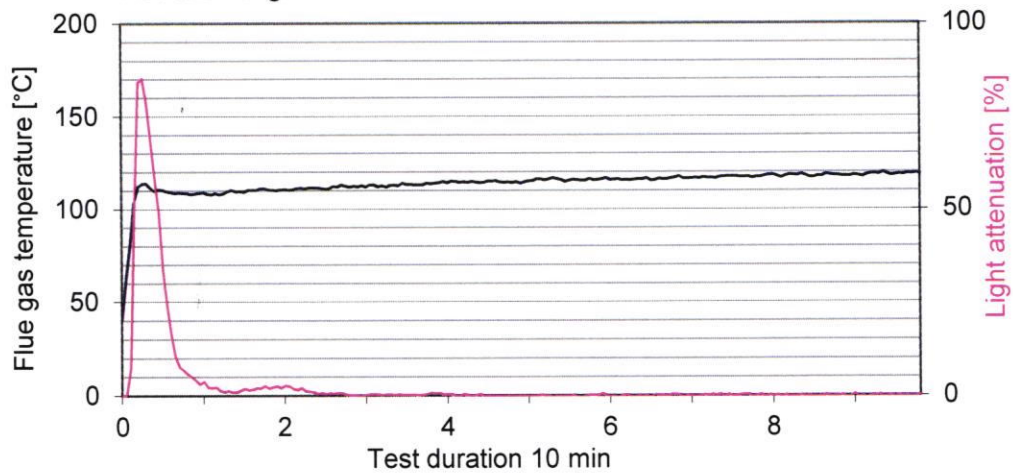


measurement

#4976, PN34130: EIKON Ltd, "IP 2305", A + K

Max. flue temperature: 120°C, Smoke density integral: 33%min

Residual length: 55 cm



Fire shaft test #4977

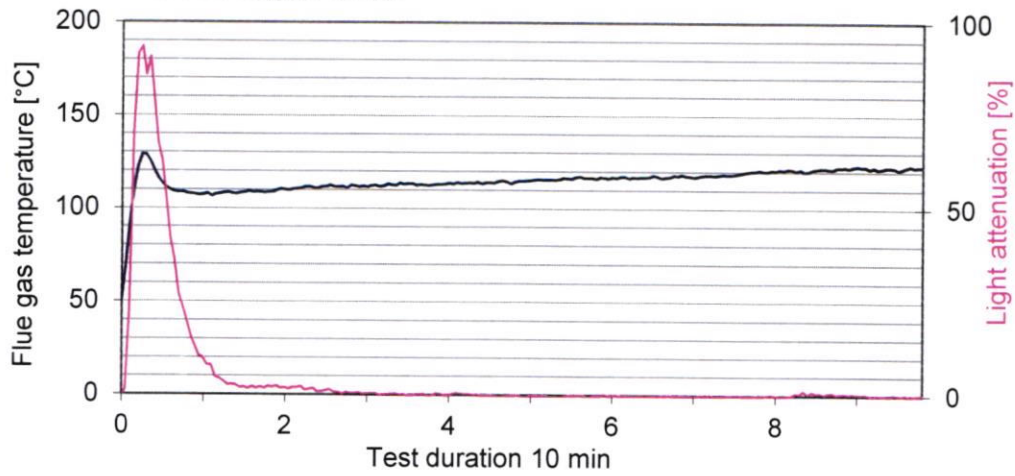


measurement

#4977, PN34131: EIKON Ltd, "IP 2305", A + K

Max. flue temperature: 129°C, Smoke density integral: 51%min

Residual length: 38 cm



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**

freely suspended
 flaming side A and side B in warp and weft direction

4. **Date of test** CW 43 in 2021

5. **Results**

PN 34130	edge-test								Dim
samples no.	1	2	3	4	5	6	7	8	
side and direction	AL	BL	AQ	BQ	BL	BL	BL	BL	
ignition ¹⁾	1	1	1	1	1	1	1	1	s
measurement mark reached ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
maximum flame height	6	8	8	8	8	8	8	8	cm
time of max. flame height	15	15	15	15	15	15	15	15	s
self-cessation of flames ¹⁾	15	15	15	15	15	15	15	15	s
flames were extinguished ¹⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
smoke development (visually)	moderate								
dropping of burning material ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
appearance after test: burned out till max. width 2 cm x height 9 cm									

PN 34130	surface-test								Dim
samples no.	1	2	3	4	5	6	7	8	
side and direction	AL	BL	AQ	BQ	-	-	-	-	
ignition ¹⁾	2	2	2	2	-	-	-	-	s
measurement mark reached ¹⁾²⁾	-/-	-/-	-/-	-/-	-	-	-	-	s
maximum flame height	8	8	8	8	-	-	-	-	cm
time of max. flame height	15	15	15	15	-	-	-	-	s
self-cessation of flames ¹⁾	15	15	15	15	-	-	-	-s	s
flames were extinguished ¹⁾	-/-	-/-	-/-	-/-	-	-	-	-	s
smoke development (visually)	moderate								
dropping of burning material ¹⁾²⁾	-/-	-/-	-/-	-/-	-	-	-	-	s
appearance after test: burned out till max. width 3 cm x height 9 cm									

¹⁾ time denoted relative to beginning of test
²⁾ during 20 Sec

-/- no occurrence
 -- no information

L / Q lengthwise / crosswise direction
 K / S warp / weft direction

PN 34131	edge-test								Dim
samples no.	1	2	3	4	5	6	7	8	
side and direction	AL	BL	AQ	BQ	BL	BL	BL	BL	
ignition ¹⁾	1	1	1	1	1	1	1	1	s
measurement mark reached ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
maximum flame height	6	8	6	8	8	8	8	8	cm
time of max. flame height	15	15	15	15	15	15	15	12	s
self-cessation of flames ¹⁾	15	15	15	15	15	15	15	14	s
flames were extinguished ¹⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	
smoke development (visually)	moderate								
dropping of burning material ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
appearance after test: burned out till max. width 2 cm x height 7 cm									

PN 34131	surface-test								Dim
samples no.	1	2	3	4	5	6	7	8	
side and direction	AL	BL	AQ	BQ	-	-	-	-	
ignition ¹⁾	2	2	2	2	-	-	-	-	s
measurement mark reached ¹⁾²⁾	-/-	-/-	-/-	-/-	-	-	-	-	s
maximum flame height	6	6	6	6	-	-	-	-	cm
time of max. flame height	15	15	15	15	-	-	-	-	s
self-cessation of flames ¹⁾	15	15	15	15	-	-	-	-s	s
flames were extinguished ¹⁾	-/-	-/-	-/-	-/-	-	-	-	-	
smoke development (visually)	moderate								
dropping of burning material ¹⁾²⁾	-/-	-/-	-/-	-/-	-	-	-	-	s
appearance after test: burned out till max. width 3 cm x height 9 cm									

¹⁾ time denoted relative to beginning of test
²⁾ during 20 Sec

-/- no occurrence
-- no information

L / Q lengthwise / crosswise direction
K / S warp / weft direction

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.