

Fire Test Certificate – Specimen

Fabric: Mercury
Type: B1

J&C Joel 
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Prüfinstitut Hoch

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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-161060

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

description of samples	beige fabric of polyester with a black middle layer
name of the material	„6904 Venus“
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	30.09.2021
result	The examined product meets the requirements of class B1 for hardly flammable (“schwerentflammbare”) building materials according to DIN 4102, pt. 1 (May 1998), suspended freely or with distance of >40 mm to same or other plain materials.

This test report includes 5 pages and 3 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.

P96-04/F000 eng Rev04
member of 
notified body no.: 1508

By the DAkkS according to DIN EN ISO/IEC 17025 accredited test laboratory.
The accreditation is valid for the testing methods specified in the certificate.



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1. Description of test material in condition as delivered

PN 24249 „6904 Venus“

beige fabric consisting of 100% polyester with a black middle layer
Side A and side B are equal

characteristic values determined by the test laboratory:

area weight: about 248 g/m² thickness: about 0,5 mm

The testing laboratory is not provided with further details concerning the 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

#8346: PN 24249 flaming side A in warp direction

#8347: PN 24249 flaming side B in weft direction

4. Date of test CW 40 in 2016

SPECIMEN

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

line no.	Measurement	Result with the tested specimen				Dim.
		#8346	#8347	---	---	
	Test number	#8346	#8347	---	---	--
	flaming direction	warp	weft	---	---	--
	side	A	B	---	---	--
1	Number of specimen arrangement acc. to DIN 4102/T15, schedule 1	1	1	---	---	--
2	Maximum flame height above bottom edge of specimen	40	50			cm
3	Time ¹⁾	0:07	0:05	---	---	min:s
4	Burn-through / melting Time ¹⁾	./.	./.	---	---	min:s
	Observations on the back side of specimen					
5	Flames / Glowing Time ¹⁾	./.	./.	---	---	min:s
6	Change of colour Time ¹⁾	./.	./.	---	---	min:s
7	Falling of burning droplets Start ¹⁾	./.	./.	---	---	min:s
8	Extent					
9	sporadic falling of burning droplets ²⁾	./.	./.	---	---	min:s
10	continuous falling of burning droplets ²⁾	./.	./.	---	---	min:s
11	Falling of burning parts Start ¹⁾	./.	./.	---	---	min:s
12	Extent	./.	./.	---	---	
13	sporadic falling of burning parts ²⁾	./.	./.	---	---	
14	continuous falling of burning parts ²⁾	./.	./.	---	---	
15	Burning duration at sieve plate (max.)	./.	./.	---	---	min:s
16	Impairment of burner by dropping or falling material: Time ¹⁾	./.	./.	---	---	min:s
17	Premature end of test					
18	Final occurrence of burning at the specimen ¹⁾	./.	./.	---	---	min:s
19	Time of eventually end of test ¹⁾	./.	./.	---	---	min:s
20	Afterburning after end of test Time ¹⁾	./.	./.	---	---	min:s
21	Number of specimen	./.	./.	---	---	
22	Front side of specimen ²⁾	./.	./.	---	---	
23	Rear side of specimen ²⁾	./.	./.	---	---	
24	flame length	./.	./.	---	---	cm
25	Afterglow after end of test Time ¹⁾	./.	./.	---	---	min:s
26	Number of specimen	./.	./.	---	---	
27	Place of appearance	./.	./.	---	---	
28	Lower half of the specimen ²⁾	./.	./.	---	---	
29	Upper half of the specimen ²⁾	./.	./.	---	---	
30	Front side of specimen ²⁾	./.	./.	---	---	
31	Rear side of specimen ²⁾	./.	./.	---	---	

100-04-FB01 eng The04

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line no.	Measurement	Result with the tested specimen				Dim.
		#8346	#8347	---	---	
	Test number	#8346	#8347	---	---	--
	flaming direction	warp	weft	---	---	--
	side	A	B	---	---	--
	<u>Density of smoke</u>					
28	≤ 400 % * min	2	1	---	---	% * min
29	> 400 % * min ⁴⁾	./.	./.	---	---	% * min
30	Diagram in enclosure no.	1	2	---	---	
31	<u>Residual lengths:</u> individual values ³⁾					
	Specimen 1	59	66	---	---	cm
	Specimen 2	65	64	---	---	cm
	Specimen 3	64	64	---	---	cm
	Specimen 4	61	62	---	---	cm
32	Average residual length ³⁾	62	64	---	---	
33	Photo of specimen in enclosure no.	1	2	---	---	
34	<u>Flue gas temperature</u>					
35	Maximum of average values	121	120	---	---	°C
35	Time ¹⁾	9:36	10:00	---	---	min:s
36	Diagram in enclosure no.	1	2	---	---	
37	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

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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 test-no.	Result with the tested specimen				dimension
		#8346 warp direction side A	#8347 weft direction side B	---	---	
1	residual length	62	64	---	---	cm
2	max. smoke temperature	121	120	---	---	°C
3	integral of smoke density	2	1	---	---	%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. 3).

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, 10.10.2016

Clerk in charge:

(Dipl.-Ing. (FH) Jürgen Hammer)



Head of test laboratory:

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

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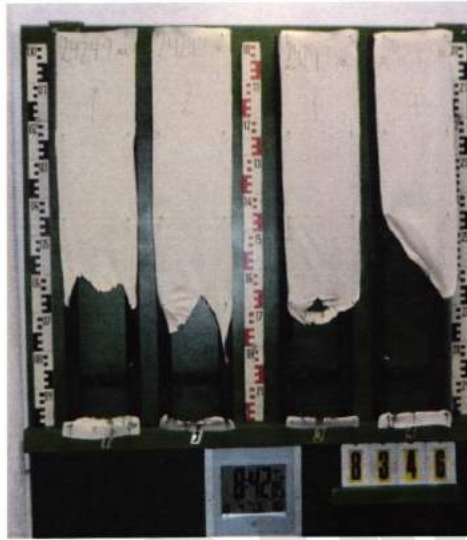
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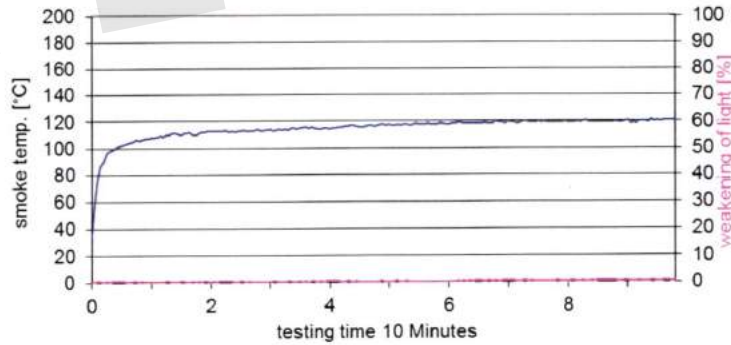
enclosure 1 test report
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Fire shaft test #8346



measurement

#8346, 6904 Venus, PN 24249
residual length: 62cm, max. smoke temp.: 121°C, smoke-Int.: 2%/min



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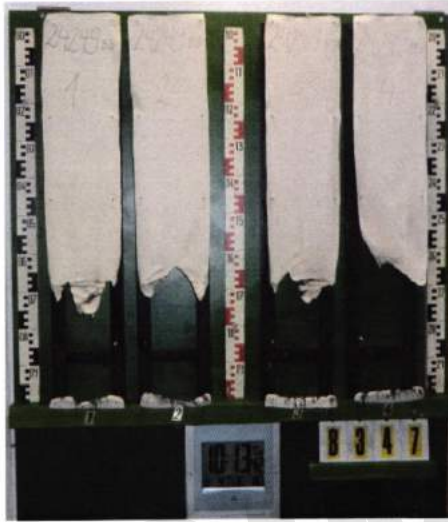
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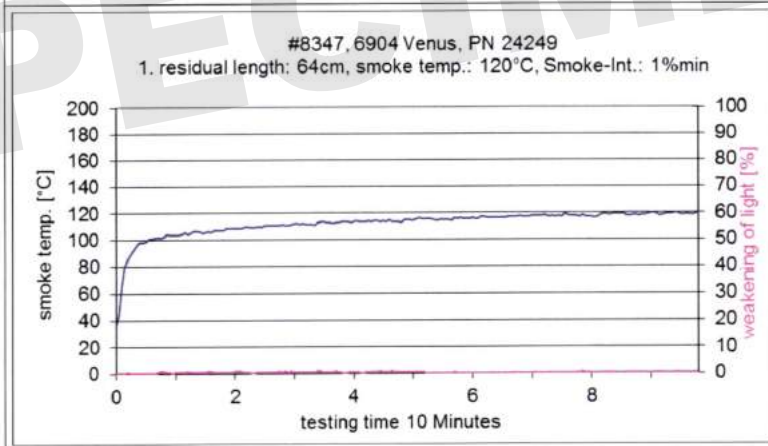
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enclosure 2 test report
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Fire shaft test #8347



measurement



F06-04-F805 eng Rev04

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enclosure 3 test report
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Test for normal flammability
classifying B2 according to DIN 4102

- Description of test material in condition as delivered cf. page 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.
- Arrangement of samples:
- freely suspended
- Flaming side A and side B in warp and in weft direction
- Date of test CW 39 in 2016

5. Results

PN 24249	edge-test								surface-test				Dimension
	tested freely suspended												
no backing	1	2	3	4	5	6	7	8	1	2	3	4	
samples no.	AK	AS	BS	BK	BK	BK	BK	BK	AK	BK	AS	BS	--
Side													
ignition ¹⁾	1	1	1	1	1	1	1	1	2	2	2	2	s
measurement mark reached ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
maximum flame height	3	4	4	5	4	4	6	6	3	3	3	3	cm
time of max. flame height	5	5	6	12	5	4	16	11	3	6	5	4	s
Self-cessation of flames end of afterburning ¹⁾	7	6	7	27	6	7	24	13	5	9	7	6	s
start of the smouldering ¹⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
end of the smouldering ¹⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
flames were extinguished after ¹⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
smoke development (visually)	moderate								moderate				--
dropping of burning material within 20 sec. ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s

Appearance after test: burned out till max. width 5 cm x height 7 cm

¹⁾ time denoted relative to beginning of test
A = front side
²⁾ during 20 Sec
B = backside
-/- no occurrence
K = warp
-- no information
S = weft

- Remarks and explanations to the testing procedure - none –
- Opinion concerning the dropping of burning material
The test for normal flammability shows no dropping burning material.