

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-140156

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	Heytex Bramsche GmbH Heywinkelstraße 1 D-49565 Bramsche
description of samples	fabric consisting of polyester, coated on one side with polyurethane (colour: white / black)
name of the material	„Artikel H7380“
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	31.01.2019
result	The examined product meets the requirements of class B1 for “schwerentflammbare” (hardly flammable) building materials according to DIN 4102, part 1 (May 1998) , suspended freely or with distance of >40 mm to same or other plain materials.

This test report includes 4 pages and 4 enclosures.

Remark: If the above mentioned building material is not used as 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 in the meaning of 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 in the meaning of state building prescriptions. This has to be verified 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 non regular building products for the needed proofs of applicability.

This test report must not be published and copied without preceding agreement of the test laboratory and if agreed, only during validity and unchanged concerning appearance and contents.

1. Description of test material in condition as delivered

PN 18795: "Artikel H7380"

-fabric consisting of polyester, coated on one side with polyurethane-

colour: white / black

side A: white

side B: black, coated

characteristic values determined by the test laboratory:

area weight: about 274 g/m² thickness: about 0,44 mm

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

2. Preparation of samples

The samples were kept in climate chamber 23/50 until they reached constant weight.

3. Arrangement of samples mounting: freely suspended

#4990: flaming side A in weft direction

#4991: flaming side B in weft direction

#4992: flaming side A in warp direction

4. Date of test CW 06 in 2014

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

line no.	Measurement	Result with the tested specimen				Dim.
		#4990	#4991	#4992	---	
	Test number					
	flaming direction / side	warp / A	weft / B	warp / A	---	
1	<u>Number of specimen arrangement</u> acc. to. DIN 4102/T15, schedule 1	1	1	1	---	
2	<u>Maximum flame height</u> above bottom edge of the specimen	50	40	40		cm
3	Time ¹⁾	0:26	0:09	1:05	---	min:s
4	<u>Burn through / melting</u> Time ¹⁾	0:03	0:04	0:03	---	min:s
	<u>Observations on the back side of the specimen</u>					
5	Flames / Glowing Time ¹⁾	./.	./.	./.	./.	min:s
6	Change of color Time ¹⁾	./.	./.	./.	./.	min:s
7	<u>Falling of burning droplets</u> Start ¹⁾	./.	X	./.	./.	min:s
	Extent	./.	0:18	./.	./.	
8	sporadic falling of burning droplets ²⁾	./.	X	./.	./.	
9	continuous falling of burning droplets ²⁾	./.	./.	./.	./.	min:s
10	<u>Falling of burning droplets</u> Start ¹⁾	./.	./.	./.	./.	min:s
	Extent	./.	./.	./.	./.	
11	sporadic falling of burning droplets ²⁾	./.	./.	./.	./.	
12	continuous falling of burning droplets ²⁾	./.	./.	./.	./.	

line no.	Measurement	Result with the tested specimen				Dim.
		#4990	#4991	#4992	---	
	Test number	#4990	#4991	#4992	---	
	flaming direction / side	warp / A	weft / B	warp / A	---	
13	Afterflame time at the bottom of the sieve (max.)	./.	0:04	./.	./.	min:s
14	Impairment of the burner by dropping or falling material: Time ¹⁾	./.	./.	./.	./.	min:s
15	Premature end of test Final occurrence of burning at the specimen ¹⁾	./.	./.	./.	./.	min:s
16	Time of eventually end of test ¹⁾	./.	./.	./.	./.	min:s
17	Afterflame after end of test Time ¹⁾	./.	./.	./.	./.	min:s
18	Number of specimen	./.	./.	./.	./.	
19	Front side of specimen ²⁾	./.	./.	./.	./.	
20	Back side of specimen ²⁾	./.	./.	./.	./.	
21	flame length	./.	./.	./.	./.	cm
22	Afterglow after end of test Time ¹⁾	./.	./.	./.	./.	min:s
23	Number of specimen Place of appearance	./.	./.	./.	./.	
24	Lower half of the specimen ²⁾	./.	./.	./.	./.	
25	Upper half of the specimen ²⁾	./.	./.	./.	./.	
26	Front side of specimen ²⁾	./.	./.	./.	./.	
27	Back side of specimen ²⁾	./.	./.	./.	./.	
28	Density of smoke ≤ 400 % * min	24	16	26	---	% * min
29	> 400 % * min ⁴⁾	./.	./.	./.	./.	% * min
30	Diagram: encl. no.	1	2	3	---	
31	Residual lengths: individual value ³⁾					
	Specimen 1	59	67	64	---	cm
	Specimen 2	56	66	64	---	cm
	Specimen 3	62	68	58	---	cm
	Specimen 4	64	72	62	---	cm
32	Average value, individual test ³⁾	60	68	62	---	
33	Photo of specimen in enclosure no.	1	2	3	---	
34	Flue gas temperature	119	122	118	---	°C
35	Maximum of average value Time ¹⁾	08:25	10:00	10:00	---	min:s
36	Diagram: encl. no.	1	2	3	---	
37	Remarks: - none -					

¹⁾ indication of times: from the begin of testing procedure ²⁾ checked off 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

There were no additional tests proceeded because of the residual length of more than 45 cm.

7. Summary of results and additional establishments to Fire Behaviour

lineo.	measurement	Result with the tested specimen				dimension
	test-no.	#4990 weft / A	#4991 weft / B	#4992 warp / A	---	
1	residual length	60	68	62	---	cm
2	max. smoke temperature	119	122	118	---	°C
3	density of smoke - integral	24	16	26	---	%min
4	remarks: -none-					

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

Pursuant to additional tests in the ignitability apparatus this can be determined (appendix 4).

8. Special remarks

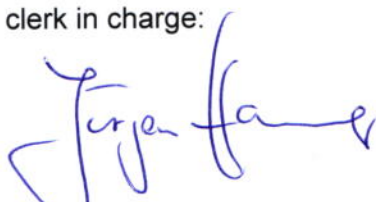
- This report is only valid for the material as described under paragraph 1. In combination with other materials or with additional coatings or grounds etc. the burning behaviour may differ.
- This test report is not valid for the exposure to outdoor climate conditions, washing or cleaning with chemicals.
- This test report is not valid, as soon as the fabric is used as a building product in the sense of the "Landesbauordnungen" (state building requirements, 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, im particular private proprietary rights.
- For legal interests only the German original version is relevant.
- In General Building Inspectorates procedures this test report can be based 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 mentioned date on page 1. The test report becomes invalid in case the standards on which the tests are based are changed.

Fladungen, 30.03.2015

clerk in charge:



(Dipl.-Ing. (FH) Jürgen Hammer)

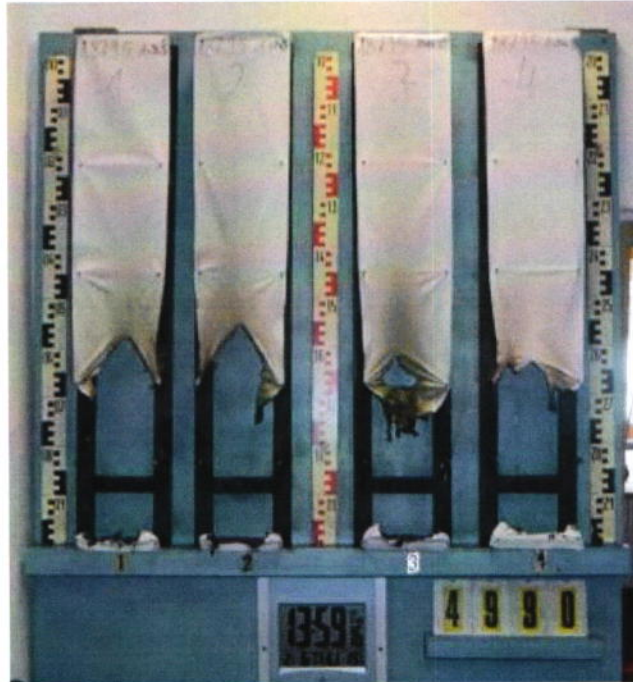


Head of the test laboratory:



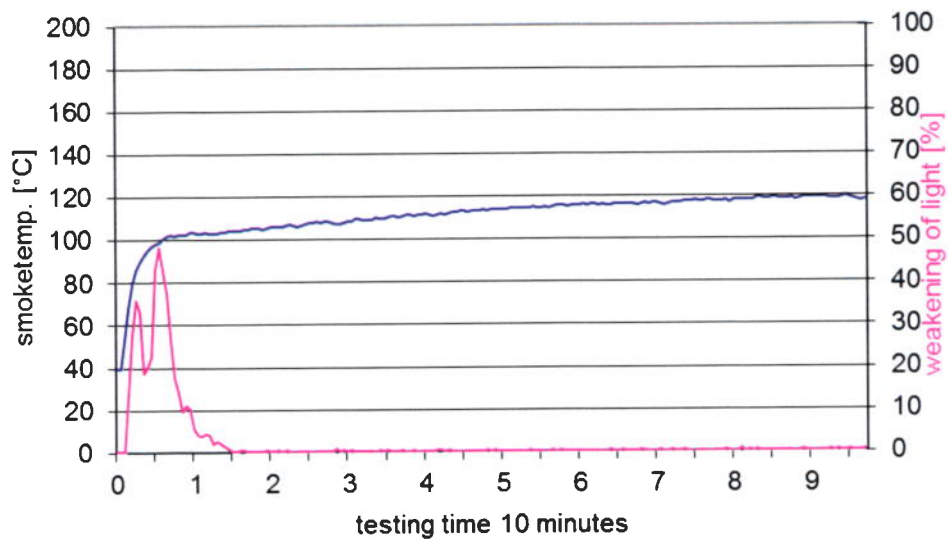
(Dipl.-Ing.(FH) Andreas Hoch)

„Brandschacht“-test #4990

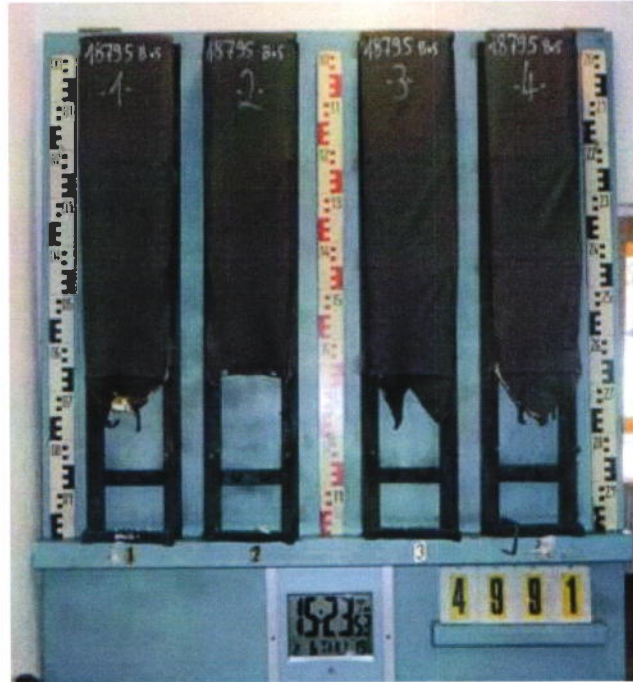


measurement

#4990, HEYTEX, "H7380" A+S, PN18795
 residual length: 60cm, max. smoketemp.: 119°C, smoke-Int.: 24%/min



„Brandschacht“-test #4991



measurement

#4991, HEYTEX, "H7380" B+S, PN18795
 residual length: 68cm, max. smoketemp.:122°C, smoke-Int.:16%/min

