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Hoch
Fladungen

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-170010

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	**Artimo Textiles bv** De Meeten 53 4706 NK Roosendaal
description of samples	- Weaving made of Trevisa CS Polyester, on one side with plastic coating in 3 colors -
name of material	**Artiscreen Silk BO**
sampling content of	by the company itself
content fo request	Proof of flammability to classify building materials to class B1 "schwerentflammbar" according to DIN 4102, part 1
request validity of test	31.01.2022
report result	**The examined product meets in color black, white and in beige and grey-tones, suspended freely or with distance of >40 mm to same or other plain materials the requirements of class B1 for "schwerentflammbare" (hardly flammable) building materials according to DIN 4102, part 1 (May 1998)**

This test report includes 5 pages and 7 enclosures.

Remark: If the above mentioned building material is not used as product according to MBO § 2, Abs. 9, Ziffer1, 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This test report must not be published and copied without preceding agreement of the test laboratory and if agreed, only during validity and unchanged concerning appearance and contents.

member of EGOLF
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.

DAkkS
Deutsche Akkreditierungsstelle
D-PL-11005-01-00

1. Description of test material in condition as delivered

PN 24683: **Artiscreen Silk BO** **in color white**

-fabric consisting of polyester with flame retardant, on one side with plastic coating-
side A: coated

characteristic values determined by the test laboratory:

thickness ≈ 0,47 mm / area weight ≈ 357 g/m²

PN 24684: **as PN 24683, however in color grey-beige (acc. to producer: lilac-grey)**

characteristic values determined by the test laboratory:

thickness ≈ 0,46 mm / area weight ≈ 353 g/m²

PN 24685: **as PN 24683, however in color black**

characteristic values determined by the test laboratory:

thickness ≈ 0,39 mm / area weight ≈ 331 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

For flame treatment in the fire shaft the testing samples of size 1000 mm x 190 mm were cut out of the material.
The samples were kept in a climate chamber 23/50 until they reached constant weight.

3. Arrangement of samples - freely suspended -

#8623:	flaming side A in warp direction	black
#8624:	flaming side B in warp direction	black
#8625:	flaming side B in weft direction	black
#8626:	flaming side B in weft direction	white
#8627:	flaming side B in weft direction	lilac-grey

4. Date of test CW 02 in 2017

5. Results

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

line no.	Measurement	Result with the tested specimen					Dim.
	Test number	#623	#8624	#8625	#8626	#8627	
Flame treatment	Side Flaming direction	A warp	B warp	B weft	B weft	B weft	
	Color of specimen	black			white	lilac-grey	
1	Number of specimen arrangement acc. to DIN 4102/T15, schedule 1	1	1	1	1	1	
2	Maximum flame height above Bottom edge of specimen	40	50	50	60	60	cm
3	Time [1]	0:08	0:18	0:09	0:27	0:25	min:s
4	Melting / burn through Time [1]	0:04	0:05	0:05	0:05	0:05	min:s
5	Observations on specimen's back side Flames / Glowing	---	---	---	---	---	
	Time[1]	./.	./.	./.	./.	./.	min:s
6	Change of color Time [1]	--- ./.	--- ./.	--- ./.	--- ./.	--- ./.	min:s
7	Falling of burnin droplets Start [1]	./. ./.	./. ./.	./. ./.	./. ./.	./. ./.	min:s
8	Extent Sporatic falling of burning droplets [2]	./.	./.	./.	./.	./.	
9	Continous falling of burning droplets [2]	---	---	---	---	---	
10	Falling of burning droplets Start [1]	./.	./.	./.	./.	./.	min:s
11	Extent Sporatic falling of burning droplets [2]	./.	./.	./.	./.	./.	
12	Continuous falling of burning droplets [2]	./.	./.	./.	./.	./.	
13	Afterflame time at the bottom of the sieve (max.)	./.	./.	./.	./.	./.	min:s
14	Impairment of the burner by dropping or falling material: Time [1]	./.	./.	./.	./.	./.	min:s
15	Premature end of test Final occurance 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
		---	---	---	---	---	min:s
22	Afterglow after end of test	./.	./.	./.	./.	./.	
23	Time [1]	---	---	---	---	---	

line no.	Measurement	Result with the tested specimen					Dim.
	Test number	#623	#8624	#8625	#8626	#8627	
Flame treatment	Side Flame direction	A warp	B warp	B weft	B weft	B weft	
	Number of specimen						
24	Place of specimen	---	---	---	---	---	
25	Lower half of the specimen [2]	---	---	---	---	---	
26	Upper half of the specimen [2]	---	---	---	---	---	
27	Front side of specimen [2] Back side of specimen [2]	---	---	---	---	---	
28	Density of smoke ≤ 400 % * min	12	16	16	36	32	% * min
29	> 400 % * min [4]	---	---	---	---	---	% * min
30	Diagram: encl. no.	1	2	3	4	5	
31	Residual lengths: individual value [3] Specimen 1	67	65	64	61	48	cm
	Specimen 2	65	67	63	651	60	cm
	Specimen 3	69	61	61	57	63	cm
	Specimen 4	63	61	63	66	58	cm
32	Average value, individual test [3]	**66**	**64**	**63**	**59**	**57**	cm
33	Photo of specimen in enclosure no.	1	2	3	4	5	
34	Flue gas temperature Maximum of average value	**118**	**116**	**116**	**117**	**119**	°C
35	Time [1]	07:33	09:24	09:21	10:00	09:39	min:s
36	Diagram: encl. no.	1	2	3	4	5	
37	Remarks: none						

1) indication of times: from the begin of testing proc.
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

Further tests in the fire shaft were renounced due to residual lengths greater than 45 cm.

7. Summary of results and additioal establishments to Fire Behaviour

Line no.	Measurement	Result with the tested specimen					Dim.
	Test number	#8623	#8624	#8625	#8626	#8627	
Flame treatment	Side Flame direction	A warp	B warp	B weft	B weft	B weft	
	Color of fabric	black			white	lilac-grey	
1	residual length	**66**	**64**	**63**	**59**	**57**	cm
2	max. smoke temperature	**118**	**116**	**116**	**117**	**119**	°C
3	density of smoke - integral	**12**	**16**	**16**	**36**	**32**	%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 6-7).

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. bauaufsichtliches Prüfzeugnis. This test report is granted without prejudice to the rights of third parties, in particular private proprietary rights.
- 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
- Special attention should be paid to the elaborations in DIN 4102-1 Appendix D, external monitoring.
- For legal interests only the German original version is relevant

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, 10.01.2017

Clerk in charge

(Dipl.-Ing. (FH) Jürgen Hammer)

Head of test laboratory

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