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Hoch
Fladungen

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TEST REPORT
PZ-Hoch-101182

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	**AMC Panke AG** Division Intercoat Beschichtungs- und Klebetechnik Boschstr. 12 D-24568 Kaltenkirchen
description of samples	selfadhesive –foil consisting of pvc, glued on expanded plastic slab (pvc)
name of the material	**Foils: „1441" - „1600" - „1690"** **substrate: „FOREX CLASSIC"**
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	31.11.2015*)
result	**The examined combinations 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.** **The examined combinations show burning droplets.**

This test report includes 5 pages and 4 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This test report must not be published and copied without preceding agreement of the test laboratory and if agreed, only during validity and unchanged concerning appearance and contents.
*) prolongation on request.

*) Verlängerung auf Antrag

1. Description of test material in condition as delivered

PN 12461 white selfadhesive –foil consisting of pvc, glued on white expanded plastic slab (pvc)

name of foil: "1600"
name of expanded plastic slab: „FOREX-CLASSIC"

characteristic values determined by the test laboratory:
whole area weight: about 2,02 kg/m² whole thickness: about 3,31 mm
thickness of pvc-slab: about 3,05 mm
thickness of pvc-foil: about 0,12 mm
area weight of pvc-slab: about 1906 g/m²
area weight of pvc-foil: about 152 g/m²

PN 12462 as PN 12461, however with following foil

name of foil: "1441"

characteristic values determined by the test laboratory:
thickness of pvc-foil: about 0,14 mm
area weight of pvc-foil: about 146 g/m²

PN 12463 as PN 12461, however with following foil

name of foil: "1640"

characteristic values determined by the test laboratory:
thickness of pvc-foil: about 0,09 mm
area weight of pvc-foil: about 128 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

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

3. Arrangement of samples

mounting: freely suspended

#1054:	**„1600"**	glued on pvc-slab	(flaming the foil-side)
#1076:	**„1600"**	glued on pvc-slab	(flaming the foil-side)
#1077:	**„1600"**	glued on pvc-slab	(flaming the foil-side)
#1055:	**„1441"**	glued on pvc-slab	(flaming the foil-side)
#1085:	**„1441"**	glued on pvc-slab	(flaming the backside)
#1056:	**„1640"**	glued on pvc-slab	(flaming the foil-side)

4. Date of test

CW 47, CW 48 and CW 49 in 2010

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

line no.	Measurement	Result with the tested specimen						Dim.
	Test number	#1054	#1076	#1077	#1055	#1085	#1056	
	material	1600			1441		1640	
	flamed side	foil-side				backside	foil-side	
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	7	7	7	7	7	7	
2	Maximum flame height above bottom edge of the specimen	70	70	70	70	70	70	cm
3	Time [1]	0:12	0:11	0:14	0:11	0:43	0:12	min:s
4	Burn through / melting Time [1]	0:57	0:58	0:58	0:52	0:52	0:54	min:s
	Observations on the back side of the specimen							
	Flames / Glowing	./.	./.	./.	./.	./.	./.	
5	Time [1]	./.	./.	./.	./.	./.	./.	min:s
	Change of color	./.	./.	./.	./.	./.	./.	
6	Time [1]	./.	./.	./.	./.	./.	./.	min:s
	Falling of burning droplets	./.	./.	./.	./.	./.	./.	
7	Start [1]							min:s
	Extent							
8	sporatic falling of burning droplets [2]	./.	./.	./.	./.	./.	./.	
9	continuous falling of burning droplets [2]	./.	./.	./.	./.	./.	./.	min:s
	Falling of burning droplets	./.	./.	./.	./.	5:49	./.	
10	Start [1]							min:s
	Extent							
11	sporatic falling of burning droplets [2]	---	---	---	---	X	---	
12	continuous falling of burning droplets [2]	---	---	---	---	---	---	
13	Afterflame time at the bottom of the sieve (max.)	./.	./.	./.	./.	1:20	./.	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
	Afterflame after end of test							
17	Time [1]	./.	./.	./.	./.	./.	./.	min:s
18	Number of specimen	./.	./.	./.	./.	./.	./.	
19	Front side of specimen [2]	./.	./.	./.	./.	./.	./.	
20	Back side of specimen [2]	./.	./.	./.	./.	./.	./.	
21	flame length	./.	./.	./.	./.	./.	./.	cm

line no.	Measurement	Result with the tested specimen						Dim.
	Test number	#1054	#1076	#1077	#1055	#1085	#1056	
	material	1600			1441		1640	
	Afterglow after end of test	./.	./.	./.	./.	./.	./.	
22	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]	./.	./.	./.	./.	./.	./.	
	Density of smoke							
28	≤ 400 % * min	240	117	125	182	246	88	% * min
29	> 400 % * min [4]	./.	./.	./.	./.	./.	./.	% * min
30	Diagram: encl. no.	1	---	---	2	---	3	
	Residual lengths: individual value [3]							
	Specimen 1	30	31	31	32	34	37	cm
31	Specimen 2	23	32	35	33	34	35	cm
	Specimen 3	37	38	36	34	39	37	cm
	Specimen 4	34	33	35	334	31	38	cm
32	Average value, individual test [3]	**31**	**34**	**34**	**33**	**35**	**37**	
33	Photo of specimen in enclosure no.	1	---	---	2	---	3	
34	Flue gas temperature	122	110	112	119	116	116	°C
35	Maximum of average value Time [1]	07:36	10:00	10:00	10:00	09:27	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

-none-

7. Summary of results and additional establishments to Fire Behaviour

linen o.	measurement	Result with the tested specimen						Dim.
	test-no.	#1054	#1076	#1077	#1055	#1085	#1056	
	material	1600			1441		1540	
	flamed side	foil-side				backside	foil-side	
1	residual length	31	34	34	33	35	37	cm
2	max. smoke temperature	122	110	112	119	116	116	°C
3	density of smoke - integral	240	117	125	182	246	88	%min
4	remarks: During the "Brandschacht"-test #1085 the material shows burning droplets.							

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.
- 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, 06.12.2010

clerk in charge:

(Dipl.-Ing. (FH) Jürgen Hammer)

ANERKANNTE PRÜF-, ÜBERWACHUNGS- UND ZERTIFIZIERUNGSSTELLE Hoch FLADUNGEN

Head of the test laboratory:

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