

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-160096-6

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	GF General Formulations GmbH Hansestraße 105 D-51149 Köln
description of samples	monomeric PVC self-adhesive foil in 80µ und 100µ in the colours white gloss, white matt, transparent gloss and transparent matt
name of the material	”Concept 600er Serie” (E600, E666, E622, E623, E624, E625, E626, E627, E628, E629)
content of request	Proof of flammability to classify building materials to class B1 ”schwerentflammbar” according to DIN 4102, part 1
validity of test report	31.12.2020
result	The examined product meets affixed on metallic surfaces with a density of $\geq 5.890 \text{ kg/m}^3$, a melting point of $\geq 1000 \text{ °C}$ and a thickness of $\geq 0,6 \text{ mm}$ the requirements of class B1 for “schwerentflammbare” (hardly flammable) building materials according to DIN 4102, part 1 (May 1998).

This test report includes 8 pages and 12 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This test report must not be published and copied without preceding agreement of the test laboratory and if agreed, only during validity and unchanged concerning appearance and contents.

1. Description of test material in condition as delivered

MONOMERIC WHITE DIGIPRINT 100 μ :

PN 22814: "Concept 600er Serie"

-white self-adhesive PVC-foil, glossy, with protective foil-
Nominal thickness 100 μ

Adhesive: transparent, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 295 g/m² total thickness: about 0,25 mm

thickness self-adhesive foil: about 0,10 mm

area weight self-adhesive foil: about 147 g/m²

PN 22815: "Concept 600er Serie"

-white self-adhesive PVC-foil, glossy, with protective foil-
Nominal thickness 100 μ

Adhesive: transparent, water-based, semi-permanent

characteristic values determined by the test laboratory:

total area weight: about 294 g/m² total thickness: about 0,26 mm

thickness self-adhesive foil: about 0,11 mm

area weight self-adhesive foil: about 150 g/m²

PN 22816: "Concept 600er Serie"

-white self-adhesive PVC-foil, glossy, with protective foil-
Nominal thickness 100 μ

Adhesive: grey, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 299 g/m² total thickness: about 0,26 mm

thickness self-adhesive foil: about 0,11 mm

area weight self-adhesive foil: about 151 g/m²

PN 22817: "Concept 600er Serie"

-white self-adhesive PVC-foil, matt, with protective foil-
Nominal thickness 100 μ

Adhesive: transparent, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 299 g/m² total thickness: about 0,26 mm

thickness self-adhesive foil: about 0,11 mm

area weight self-adhesive foil: about 157 g/m²

PN 22818: "Concept 600er Serie"

-white self-adhesive PVC-foil, matt, with protective foil-
Nominal thickness 100 μ

Adhesive: transparent, water-based, semi-permanent

characteristic values determined by the test laboratory:

total area weight: about 294 g/m² total thickness: about 0,25 mm

thickness self-adhesive foil: about 0,11 mm

area weight self-adhesive foil: about 153 g/m²

PN 22819: "Concept 600er Serie"

-white self-adhesive PVC-foil, matt, with protective foil-

Nominal thickness 100 μ

Adhesive: grey, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 298 g/m² total thickness: about 0,26 mm

thickness self-adhesive foil: about 0,12 mm

area weight self-adhesive foil: about 158 g/m²

PN 22820: "Concept 600er Serie"

-white self-adhesive PVC-foil, matt, with protective foil-

Nominal thickness 100 μ

Adhesive: grey, water-based, semi-permanent

characteristic values determined by the test laboratory:

total area weight: about 297 g/m² total thickness: about 0,26 mm

thickness self-adhesive foil: about 0,11 mm

area weight self-adhesive foil: about 155 g/m²

MONOMERIC CLEAR OVER LAMINATE 80 μ :

PN 22821: "Concept 600er Serie"

-transparent self-adhesive PVC-foil, glossy, with protective foil-

Nominal thickness 80 μ

Adhesive: transparent, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 260 g/m² total thickness: about 0,25 mm

thickness self-adhesive foil: about 0,10 mm

area weight self-adhesive foil: about 111 g/m²

PN 22821: "Concept 600er Serie"

-transparent self-adhesive PVC-foil, matt, with protective foil-

Nominal thickness 80 μ

Adhesive: transparent, water-based, permanent

characteristic values determined by the test laboratory:

total area weight: about 259 g/m² total thickness: about 0,25 mm

thickness self-adhesive foil: about 0,10 mm

area weight self-adhesive foil: about 115 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 the dimensions 1000 mm height and 190 mm width were cut out from the material for fire testing. The self-adhesive foil was affixed on steel panel with a thickness of 0,88 mm. The samples were kept in climate chamber 23/50 until they reached constant weight.

3. Arrangement of samples mounting: affix an steel panel

#7460:	PN22816	flaming in longitudinal direction
#7468:	PN22817	flaming in longitudinal direction
#7472:	PN22818	flaming in longitudinal direction
#7461:	PN22819	flaming in longitudinal direction
#7473:	PN22820	flaming in longitudinal direction
#7474:	PN22822	flaming in longitudinal direction
#7479:	PN22822	flaming in longitudinal direction
#7480:	PN22822	flaming in longitudinal direction
#7477:	PN22822	flaming in cross direction

4. Date of test CW 04 in 2016

5.1 Results (part 1) the tests were been examined according to DIN 4102 (Mai 1998)

①	Measurement	Result with the tested specimen				Dim.
		#7477	#7474	#7479	#7480	
	Test number	#7477	#7474	#7479	#7480	
	fabric	"Concept 600er Serie"				
	flamed direction	cross	lengthwise			
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	7	7	7	7	
2	Maximum flame height above bottom edge of the specimen	70	70	70	70	cm
3	Time ¹⁾	0:51	0:40	0:41	0:39	min:s
4	Burn through / melting Time ¹⁾	---	---	---	---	min:s
	Observations on the back side of the 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 droplets Start ¹⁾	./.	./.	./.	./.	min:s
12	Extent	./.	./.	./.	./.	
13	sporadic falling of burning droplets ²⁾	./.	./.	./.	./.	min:s
13	continuous falling of burning droplets ²⁾	./.	./.	./.	./.	min:s
13	Afterflame time at the bottom of the sieve (max.)	./.	./.	./.	./.	min:s

No.	Measurement	Result with the tested specimen				Dim.
		#7477	#7474	#7479	#7480	
	Test number	#7477	#7474	#7479	#7480	
	fabric	"Concept 600er Serie"				
	flamed direction	cross	lengthwise			
14	<u>Impairment of the burner by dropping or falling material:</u> Time ¹⁾	./.	./.	./.	./.	min:s
15	<u>Premature end of test</u> Final occurrence of burning at the specimen ¹⁾	./.	./.	./.	./.	min:s
16	Time of eventually end of test ¹⁾	./.	./.	./.	./.	min:s
17	<u>Afterflame after end of test</u> 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	<u>Afterglow after end of test</u> Time ¹⁾	./.	./.	./.	./.	min:s
23	Number of specimen <u>Place of appearance</u>	./.	./.	./.	./.	
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	<u>Density of smoke</u> ≤ 400 % * min	26	25	23	28	% * min
29	> 400 % * min ⁴⁾	./.	./.	./.	./.	% * min
30	Diagram: encl. no.	1	2	3	4	
31	<u>Residual lengths: individual value</u> ³⁾ Specimen 1	41	36	43	38	cm
	Specimen 2	40	35	40	39	cm
	Specimen 3	41	38	39	40	cm
	Specimen 4	40	40	41	42	cm
32	<u>Average value, individual test</u> ³⁾	41	37	41	40	cm
33	<u>Photo of specimen in enclosure no.</u>	1	2	3	4	
34	<u>Flue gas temperature</u>	117	113	114	114	°C
35	Maximum of average value Time ¹⁾	09:54	09:45	09:45	09:27	min:s
36	Diagram: encl. no.	1	2	3	4	
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

5.2 Results (part 2)

the tests were been examined according to DIN 4102 (Mai 1998)

①	Measurement	Result with the tested specimen					Dim.
	Test number	#7460	#7468	#7472	#7461	#7473	
	fabric	"Concept 600er Serie"					
		Glossy G	Matt C	Matt CR	Matt G	Matt GR	
	flamed direction	lengthwise					
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	7	7	7	7	7	
2	Maximum flame height above bottom edge of the specimen	70	70	60	60	70	cm
3	Time ¹⁾	1:02	0:47	0:36	0:39	0:46	min:s
4	Burn through / melting Time ¹⁾	---	---	---	---	---	min:s
5	Observations on the back side of the specimen Flames / Glowing Time ¹⁾	./.	./.	./.	./.	./.	min:s
6	Change of colour Time ¹⁾	./.	./.	./.	./.	./.	min:s
7	Falling of burning droplets Start ¹⁾	./.	X	./.	./.	./.	min:s
8	Extent sporadic falling of burning droplets ²⁾	./.	./.	./.	./.	./.	min:s
9	continuous falling of burning droplets ²⁾	./.	X	./.	./.	./.	min:s
10	Falling of burning droplets Start ¹⁾	./.	./.	./.	./.	./.	min:s
11	Extent sporadic falling of burning droplets ²⁾	./.	./.	./.	./.	./.	min:s
12	continuous falling of burning droplets ²⁾	./.	./.	./.	./.	./.	min:s
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 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

①	Measurement	Result with the tested specimen					Dim.
	Test number	#7460	#7468	#7472	#7461	#7473	
	fabric	"Concept 600er Serie"					
		Glossy G	Matt C	Matt CR	Matt G	Matt GR	
	flamed direction	lengthwise					
	<u>Afterglow after end of test</u>	./.	./.	./.	./.	./.	min:s
22	Time ¹⁾	./.	./.	./.	./.	./.	
23	Number of specimen	./.	./.	./.	./.	./.	
	<u>Place of appearance</u>	./.	./.	./.	./.	./.	
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⁾	./.	./.	./.	./.	./.	
	<u>Density of smoke</u>						
28	≤ 400 % * min	18	21	11	19	14	% * min
29	> 400 % * min ⁴⁾	./.	./.	./.	./.	./.	% * min
30	Diagram: encl. no.	5	6	7	8	9	
	<u>Residual lengths: individual value ³⁾</u>						
31	Specimen 1	40	39	43	39	42	cm
	Specimen 2	42	37	44	38	38	cm
	Specimen 3	41	38	38	38	40	cm
	Specimen 4	43	39	40	40	43	cm
32	<u>Average value, individual test ³⁾</u>	42	38	41	39	41	cm
33	<u>Photo of specimen in enclosure no.</u>	5	6	7	8	9	
34	<u>Flue gas temperature</u>	116	115	115	116	114	°C
35	Maximum of average value Time ¹⁾	10:00	09:33	09:57	10:00	09:36	min:s
36	Diagram: encl. no.	5	6	7	8	9	
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

line	measurement	Result with the tested specimen				dimension
		#7477	#7474	#7479	#7480	
	test-no.	#7477	#7474	#7479	#7480	
	fabric	"Concept 600er Serie"				
	flamed direction	cross	lengthwise			
1	residual length	41	37	41	40	cm
2	max. smoke temperature	117	113	114	114	°C
3	density of smoke - integral	26	25	23	28	%min

line	measurement	Result with the tested specimen					dimension
		#7460	#7468	#7472	#7461	#7473	
	test-no.	#7460	#7468	#7472	#7461	#7473	
	fabric	"Concept 600er Serie"					
		Glossy G	Matt C	Matt CR	Matt G	Matt GR	
	flamed direction	lengthwise					
1	residual length	42	38	42	39	41	cm
2	max. smoke temperature	116	115	115	116	114	°C
3	density of smoke - integral	18	21	11	19	14	%min

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

Pursuant to additional tests in the ignitability apparatus this can be determined (appendix 10-12).

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, 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 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, 20.09.2017

Clerk in charge:

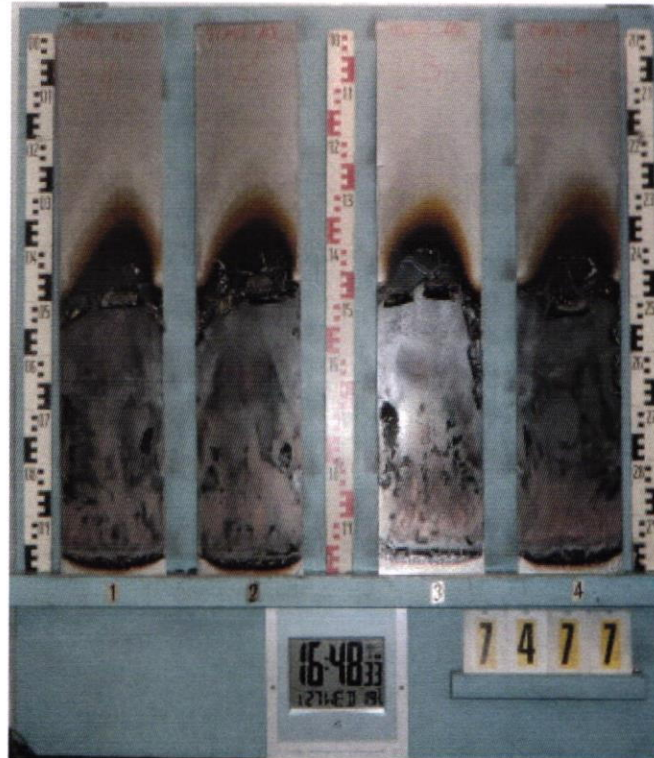
(Dipl.-Ing. (FH) Jürgen Hammer)



Head of the test laboratory:

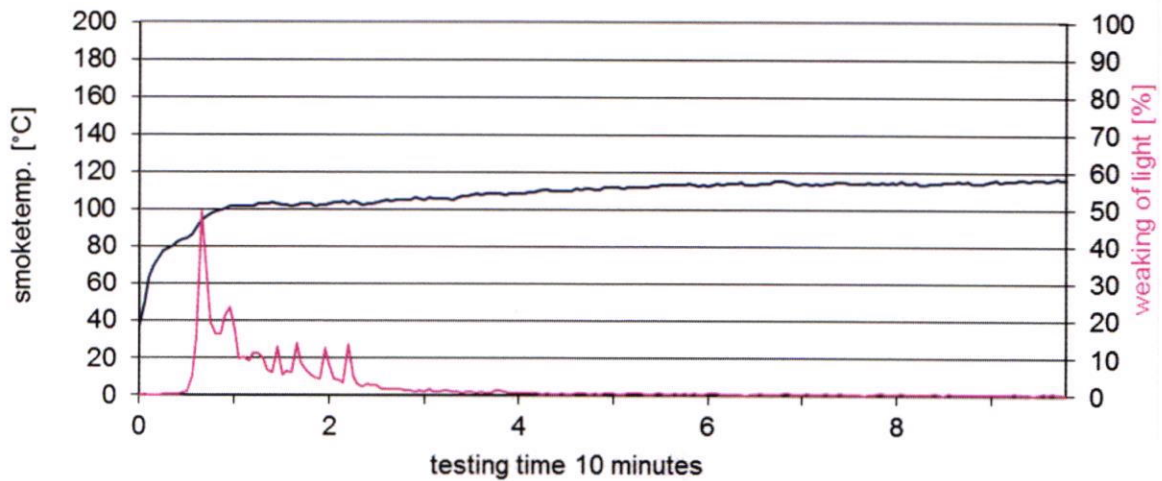
(Dipl.-Ing. (FH) Andreas Hoch)

„Brandschacht“-test #7477

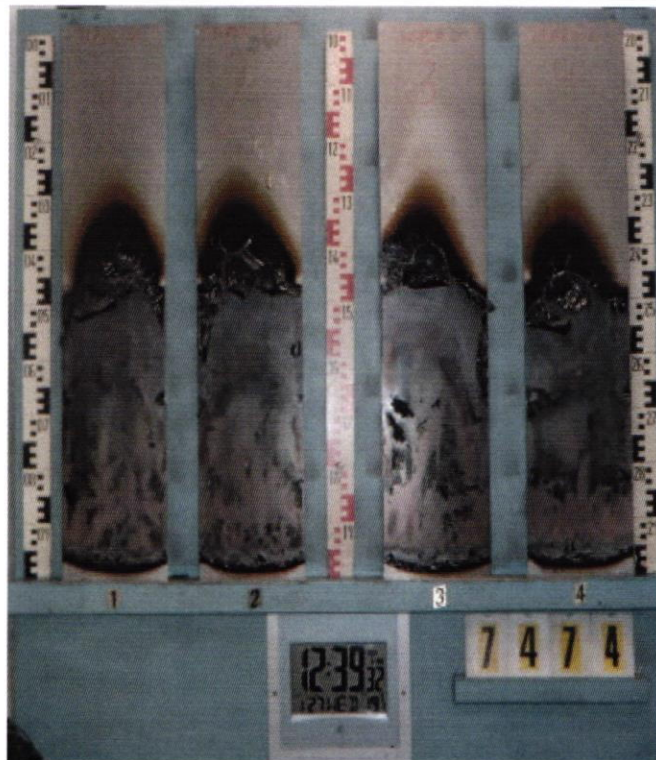


measurement

#7477 GF General Formulations, cross, PN22822
residual length: 41cm, max. smoketemp.: 117°C, smoke-Int.: 26%/min

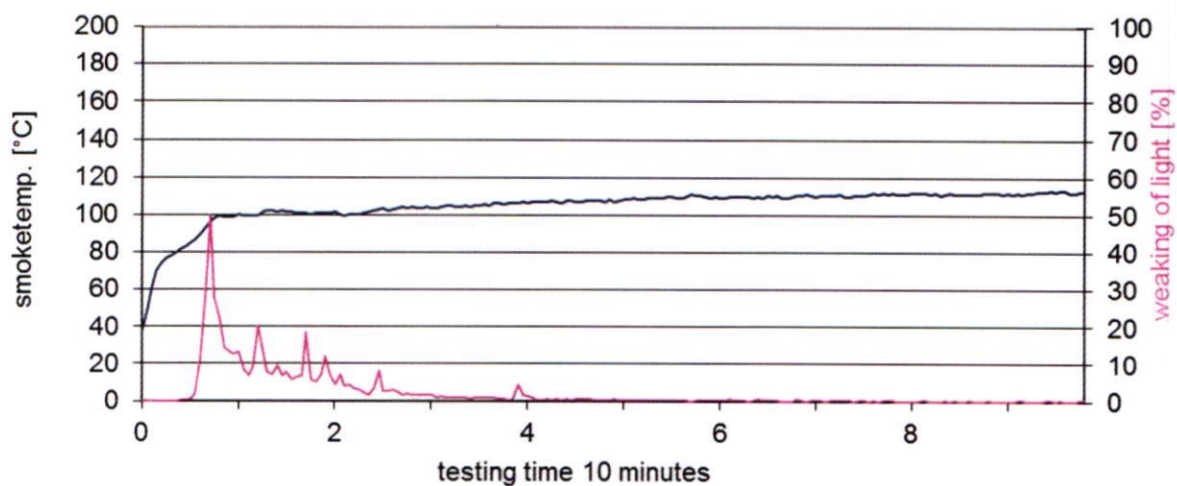


„Brandschacht“-test #7474

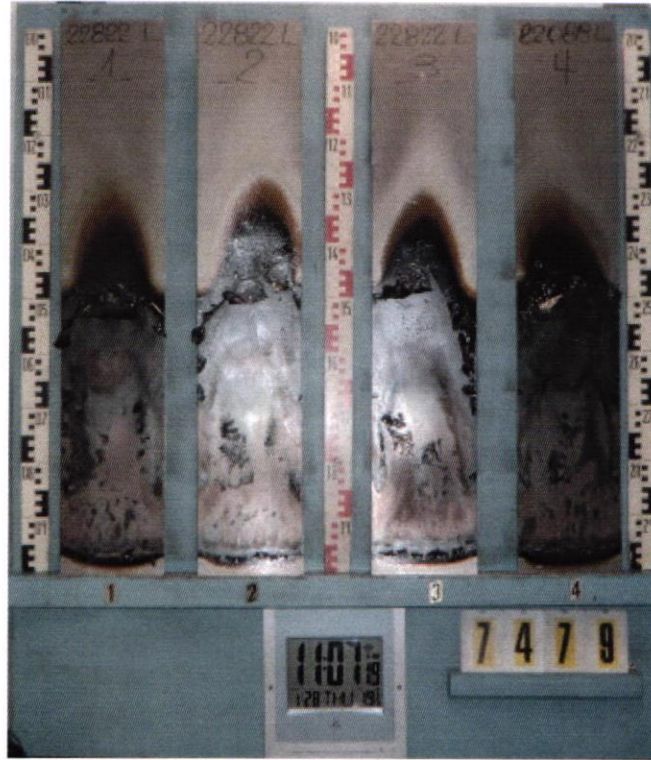


measurement

#7474 GF General Formulations, lengthwise, PN22822
 residual length: 37cm, max. smoketemp.: 113°C, smoke-Int.: 25%/min

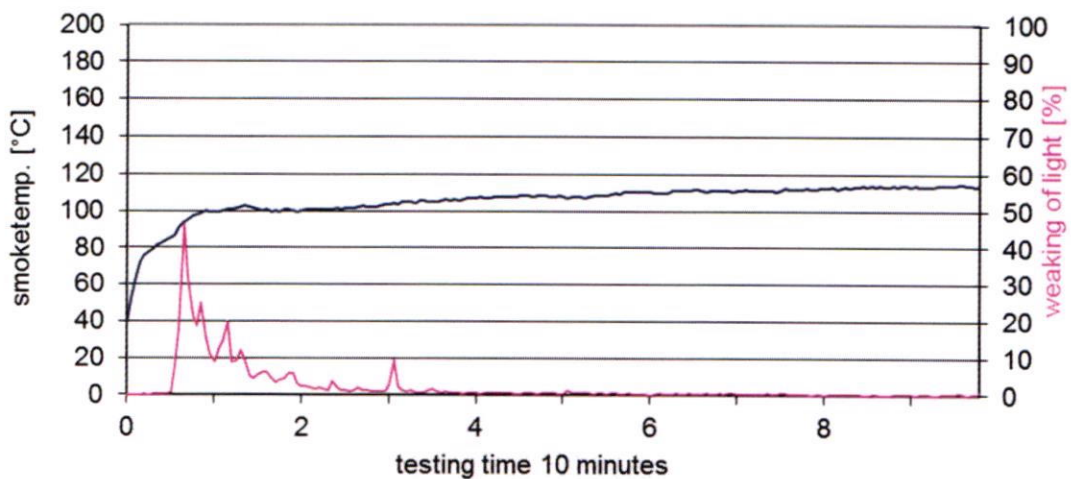


„Brandschacht“-test #7479



measurement

#7479 GF General Formulations, lengthwise, PN22822
residual length: 41cm, max. smoketemp.: 114°C, smoke-Int.: 23%/min

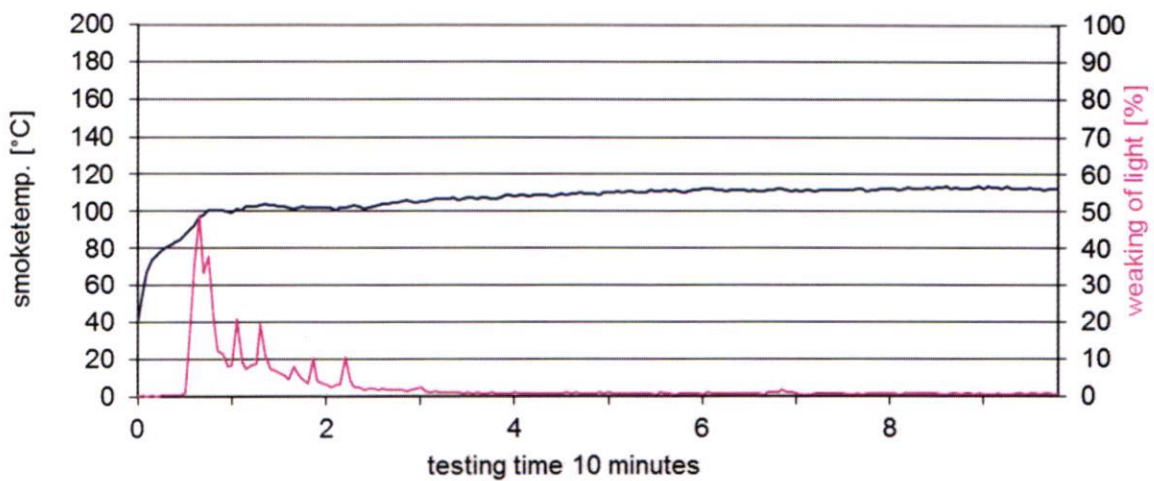


„Brandschacht“-test #7480

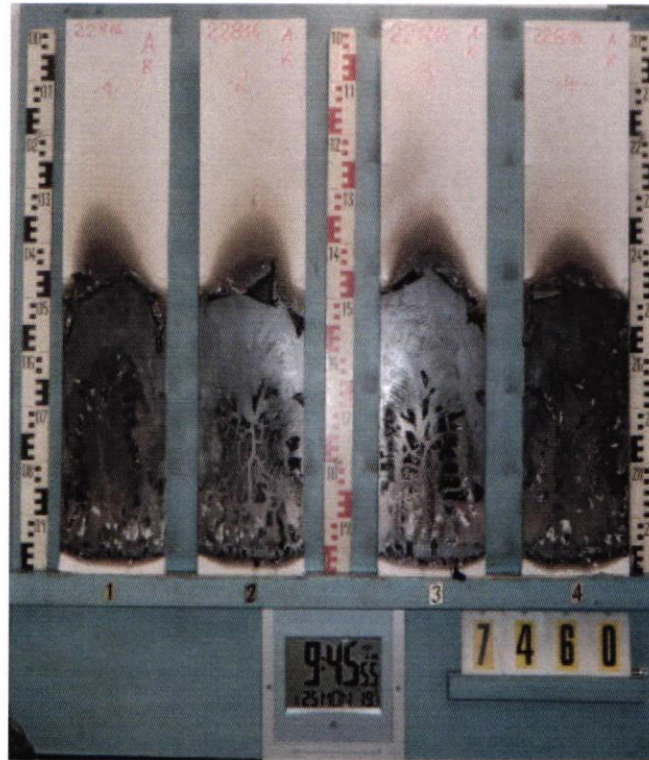


measurement

#7480 GF General Formulations, lengthwise, PN22822
 residual length: 40cm, max. smoketemp.: 114°C, smoke-Int.: 28%/min

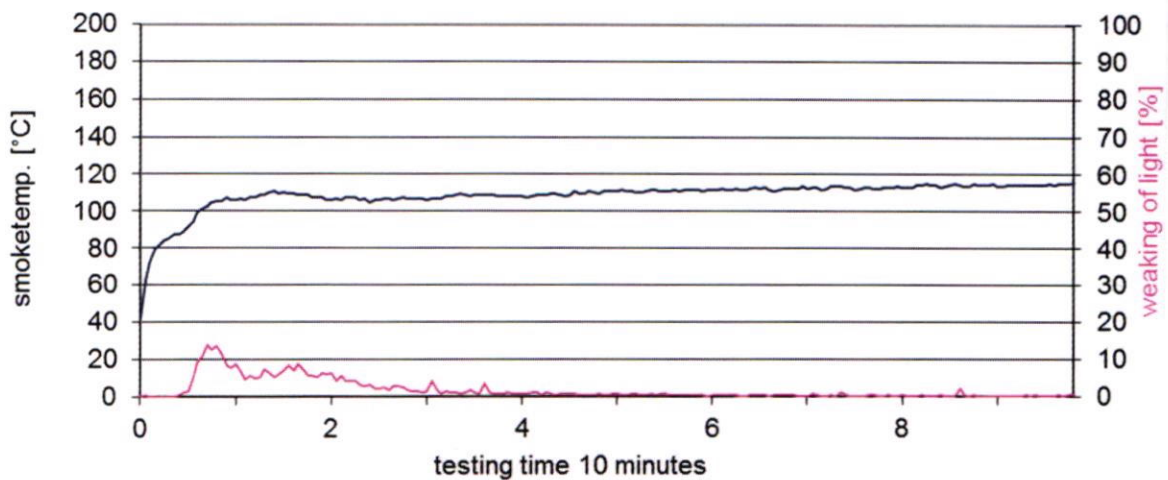


„Brandschacht“-test #7460



measurement

#7460 GF General Formulations, lengthwise, PN22816
 residual length: 42cm, max. smoketemp.: 116°C, smoke-Int.: 18%/min

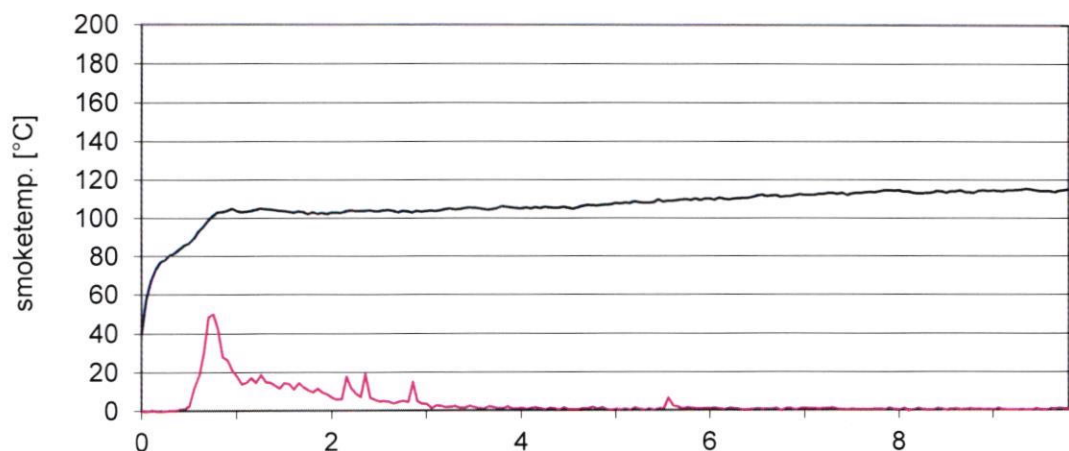


„Brandschacht“-test #7468



measurement

#7468 GF General Formulations, lengthwise, PN22817
residual length: 38cm, max. smoketemp.: 115°C, smoke-Int.: 21%/min

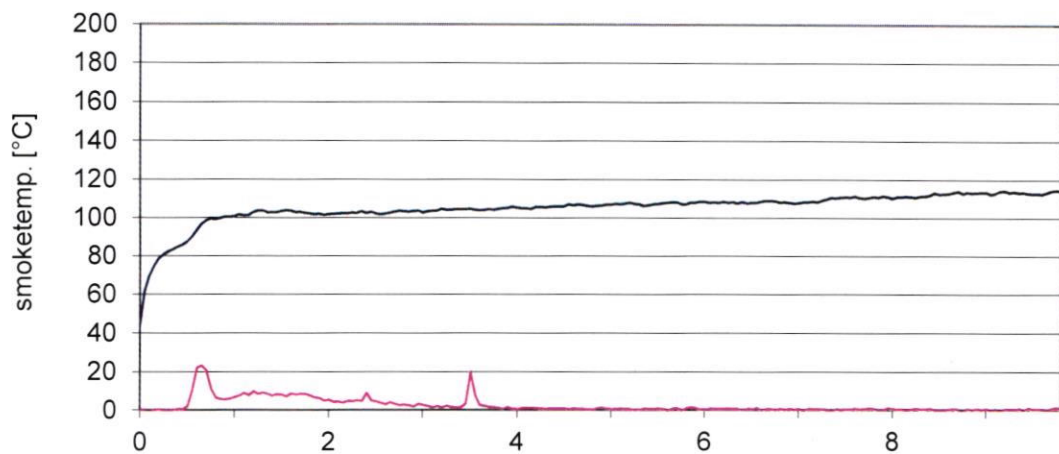


„Brandschacht“-test #7472

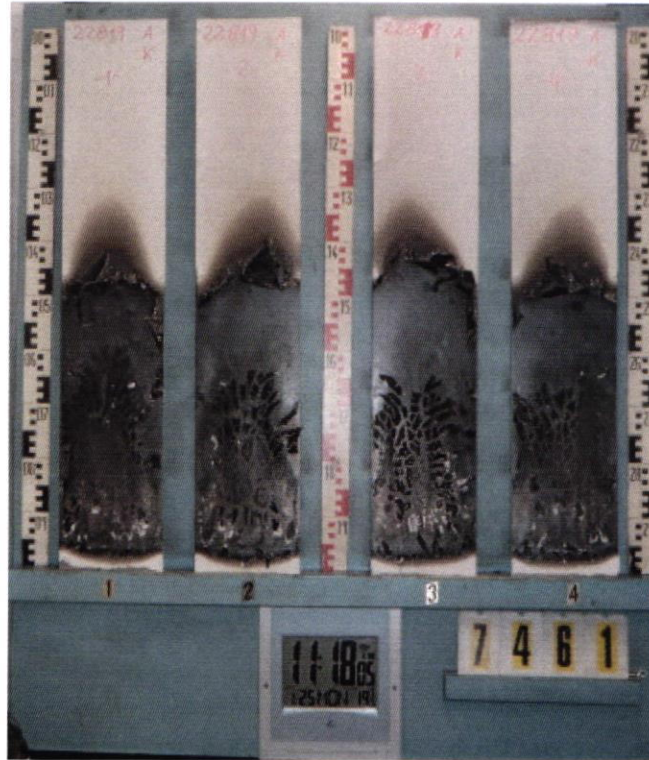


measurement

#7472 GF General Formulations, lengthwise, PN22818
residual length: 41cm, max. smoketemp.: 115°C, smoke-Int.: 11%/min

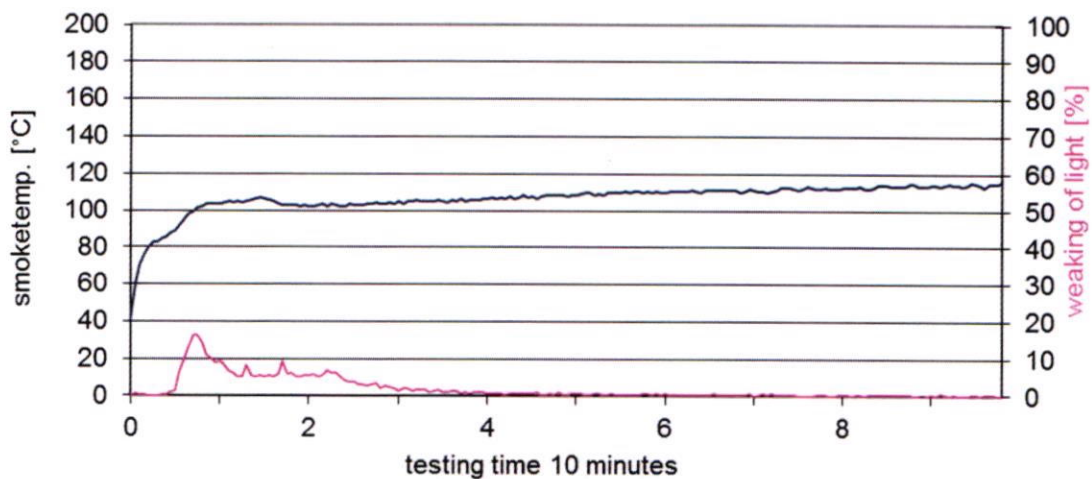


„Brandschacht“-test #7461



measurement

#7461 GF General Formulations, lengthwise, PN22819
residual length: 39cm, max. smoketemp.: 116°C, smoke-Int.: 19%/min

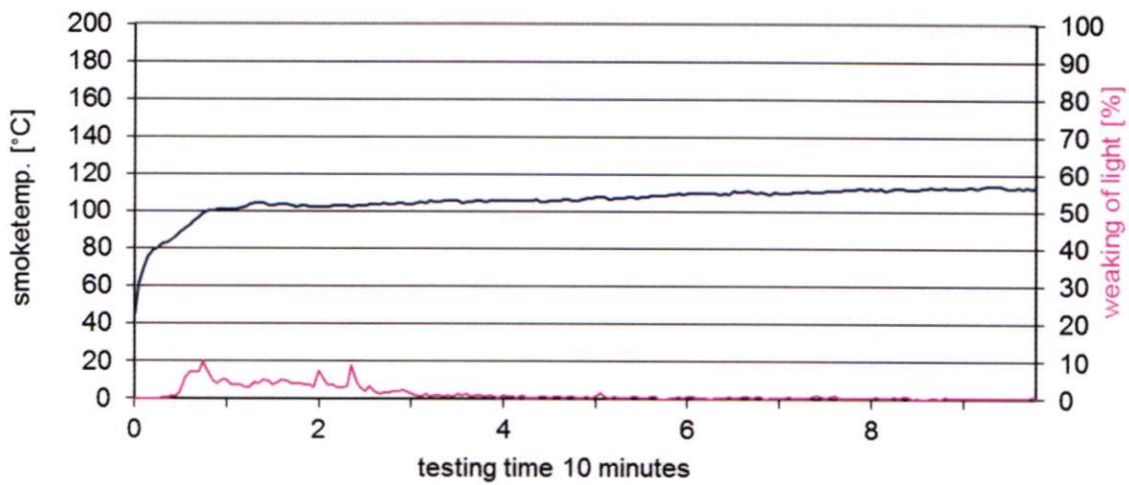


„Brandschacht“-test #7473



measurement

#7473 GF General Formulations, lengthwise, PN22820
 residual length: 41cm, max. smoketemp.: 114°C, smoke-Int.: 14%/min



**Test for normal flammability
 classifying B2 according to DIN 4102**

1. Description of test material in condition as delivered look at page 2
2. Preparation of samples
 Out of the material there have been cut samples for the ignitability apparatus. The self-adhesive foil was affix on steel panel with a thickness of 0,88 mm. The samples were kept in a climate 23/50 until they reached constant weight.
3. Arrangement of samples -affix on steel panel-
4. Date of test CW 03 and 05 in 2016
5. Results

PN 22818: flaming side B in warp direction	edge-test						surface-test						Dim
	1	2	3	4	5	6	1	2	3	4	5	6	
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	1	1	1	--	6	--	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
max. flame height	5	4	4	3	5	--	3	--	--	--	--	--	cm
time	5	4	5	4	4	--	12	--	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	15	15	15	--	15	--	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
smoke development (visual)	very heavy						very heavy						
dropping of burning material during 20 s ¹⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
Appearance after test: burned out till max. height 2,5 cm x width 5 cm													

PN 22818: additional tests	edge-test						surface-test						Dim
	1	2	3	4	5	6	1	2	3	4	5	6	
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	--	--	--	--	--	3	--	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	--	--	--	--	--	-/-	--	--	--	--	--	s
max. flame height	3	--	--	--	--	--	5	--	--	--	--	--	cm
time	5	--	--	--	--	--	12	--	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	--	--	--	--	--	15	--	--	--	--	--	s
end of glowing ¹⁾	-/-	--	--	--	--	--	-/-	--	--	--	--	--	s
smoke development (visual)	moderate-low						moderate-low						
dropping of burning material during 20 s ¹⁾	-/-	--	--	--	--	--	-/-	--	--	--	--	--	s
Appearance after test: burned out till max. height 1 cm x width 3 cm													

¹⁾ time mentioned from the beginning of the test ²⁾ during 20 Sec -/- no appearance -- no information

PN 22816:	edge-test						surface-test						Dim
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	--	--	--	--	6	6	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
max. flame height	3	3	--	--	--	--	3	3	--	--	--	--	cm
time	5	4	--	--	--	--	12	9	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	--	--	--	--	15	15	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
smoke development (visual)	low						low						
dropping of burning material during 20 s ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
Appearance after test: burned out till max. height 1 cm x width 3 cm													

PN 22817:	edge-test						surface-test						Dim
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	--	--	--	--	4	5	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
max. flame height	5	3	--	--	--	--	3	3	--	--	--	--	cm
time	5	5	--	--	--	--	10	12	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	--	--	--	--	15	15	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
smoke development (visual)	moderate-low						moderate-low						
dropping of burning material during 20 s ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
Appearance after test: burned out till max. height 1,5 cm x width 6 cm													

PN 22819:	edge-test						surface-test						Dim
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	2	--	--	--	--	6	6	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
max. flame height	3	2	--	--	--	--	3	3	--	--	--	--	cm
Time	5	6	--	--	--	--	6	10	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	--	--	--	--	15	15	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
smoke development (visual)	low						low						
dropping of burning material during 20 s ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
Appearance after test: burned out till max. height 1 cm x width 3 cm													

¹⁾ time mentioned from the beginning of the test ²⁾ during 20 Sec -/- no appearance -- no information

PN 22820:	edge-test						surface-test						Dim
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	--	--	--	--	6	5	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
max. flame height	3	3	--	--	--	--	3	3	--	--	--	--	cm
Time	6	5	--	--	--	--	8	12	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	--	--	--	--	15	15	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
smoke development (visual)	moderate-low						moderate-low						
dropping of burning material during 20 s ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
Appearance after test: burned out till max. height 1 cm x width 4 cm													

PN 22822:	edge-test						surface-test						Dim
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	--	--	--	--	6	4	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
max. flame height	2	3	--	--	--	--	2	2	--	--	--	--	cm
time	3	4	--	--	--	--	8	5	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	15	15	--	--	--	--	15	15	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
smoke development (visual)	moderate-low						moderate-low						
dropping of burning material during 20 s ¹⁾	-/-	-/-	--	--	--	--	-/-	-/-	--	--	--	--	s
Appearance after test: burned out till max. height 1 cm x width 3 cm													

¹⁾ time mentioned from the beginning of the test ²⁾ during 20 Sec -/- no appearance -- no information

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.