

TEST CERTIFICATE

No. 230011640 of 30.11.2018

as proof of the Schwerentflammbarkeit according to DIN 4102-1 (May 1998)

English version

Sponsor:

Antalis
8, rue de Seine
92 100 Boulogne-Billancourt
Frankreich

(submitted for testing by another sponsor*)

Date of application:	04.07.2017
Date of sampling:	Samples were sent in by the sponsor
Samples delivered on	25.04.2012, 18.08.2017, 19.09.2017 and 12.10.2017
Date of testing:	11.05.2012, 15.05.2012, 21.05.2012, 06.09.2017, 07.09.2017, 19.09.2017, 22.09.2017, 05.10.2017 and 26.10.2017

Order

Testing according to DIN 4102-1 (May 1998) class B1

Description / Name of tested product

With solvent-inks respectively latex-inks printable polymeric PVC self-adhesive films „Coala 2D Gloss PG“, „Coala 2D Gloss P“, „Coala 2D Air Free“, „Coala 2D Matt P“, „Coala 2D Transparent Gloss P“ and „Coala 2D Transparent Matt P“ combined with the laminate films „Coala 2D Lam Gloss“ and „Coala 2D Lam Matt“ for markings, letterings and decorations

(submitted for testing among other names*)

Applied test procedure

DIN 4102 part 1 (May 1998)

*Details about this are located in the files of MPA NRW

Remark: This test certificate is a translation of the original test certificate 230011640 issued 30.11.2018 in German language and is only allowed to be used together with the original test certificate.

This test certificate is valid until 02.07.2022.
The test results only relate to the above named product.
Any change in form or content to a test certificate and the reproduction of a shortened version can only be made by the approval of MPA NRW.
This test certificate consists of 16 pages and 1 enclosure.



Designation by the sponsor: „Coala 2D Gloss PG“, „Coala 2D Gloss P“, „Coala 2D Air Free“, „Coala 2D Matt P“, „Coala 2D Transparent Gloss P“ and „Coala 2D Transparent Matt P“ combined with the laminate films „Coala 2D Lam Gloss“ and „Coala 2D Lam Matt“

Description:

With solvent-inks respectively latex-inks in different colours printable polymeric, calendered PVC-films with a permanent adhesive respectively removable stickiness

Thickness of the films: 75 µm

Colour of the films: white glossy, transparent matt respectively transparent glossy

Colour of the adhesive: transparent respectively grey

(Details given by the sponsor)

Colour of the tested printable films 2D Gloss PG and 2D Matt P: white

Colour of the tested printable film 2D Transparent Matt P: colourless, transparent

Colour of the tested laminate film 2D Lam Matt: colourless, transparent

Gloss level of the film 2D Gloss PG: glossy

Gloss level of the films 2D Matt P, 2D Transparent Matt P and of the laminate film 2D Lam Matt: matt

Colour of the adhesive at the film 2D Gloss PG: grey

Colour of the adhesive at the films 2D Matt P, 2D Transparent Matt P and of the laminate film 2D Lam Matt: transparent

Table 1: Specific values of the tested material

		Measured min. value	Arithmetic average value	Measured max. value
Thickness	mm			
a) film 2D Gloss PG		--	0.09	--
b) film 2D Matt P		--	0.10	--
c) film 2D Transparent Matt P		--	0.09	--
d) laminate film 2D Lam Matt		--	0.08	--
Weight per unit area	g/m ²			
a) film 2D Gloss PG		--	128	--
b) film 2D Matt P		--	119	--
c) film 2D Transparent Matt P		--	106	--
d) laminate film 2D Lam Matt		--	110	--

Special notes: The choice of the checked films occurred by MPA NRW. The test of the film type 2D Matt P occurred on behalf for the other printable foils printed with solvent-inks respectively latex-inks and final laminated with the laminate film 2D Lam Matt.

row-no.		Results of the Brandschacht test (part 1)			
		measurements test specimen			
Film type 2D Gloss PG		A1			
1	<u>No. of test specimen arrangement according to DIN 4102, part 15, table 1</u>	--			
2	<u>Max. flame height above bottom edge</u>	70			
	cm				
	Time ¹⁾	1:00			
	min : s				
4	<u>Melt through / burn through</u>	-- ²⁾			
5	Time ¹⁾	-- ²⁾			
	min : s				
6	<u>Discolouration</u>	10:00			
	Time ¹⁾				
	min : s				
7	<u>Burning droplets</u>	-- ²⁾			
8	Start ¹⁾	-- ²⁾			
	min : s				
9	<u>Extent</u>	-- ²⁾			
10	sporadic burning droplets	-- ²⁾			
	min : s				
11	<u>Falling particles which burns</u>	-- ²⁾			
12	Start ¹⁾	-- ²⁾			
	min : s				
13	<u>Duration of the burning on the screen bottom (max.)</u>	-- ²⁾			
14	Time ¹⁾	-- ²⁾			
	min : s				
15	<u>Early termination of the test</u>	-- ²⁾			
16	End of burning at the specimen ¹⁾	-- ²⁾			
	Time of early cancellation of the test ¹⁾	-- ²⁾			
	min : s				

¹⁾ Time counting from the start of the test

row-no.		Results of the Brandschachttest (part 2)			
		measurements test specimen			
		A1			
17	<u>Continuous burning after termination of the test</u>				
	Duration	min : s	-- ²⁾		
	18	Number of specimens	-- ²⁾		
	19	Front side of the specimen	-- ²⁾		
	20	Back side of the specimen	-- ²⁾		
21	Flame length	cm	-- ²⁾		
22	<u>Smouldering after termination of the test</u>				
	Duration	min : s	-- ²⁾		
	23	Number of specimens	-- ²⁾		
	<u>Location</u>				
	24	Lower half of the specimens	-- ²⁾		
	25	Upper half of the specimens	-- ²⁾		
	26	Front side of the specimen	-- ²⁾		
27	Backside of the specimen	-- ²⁾			
28	<u>Smoke development</u>				
	≤ 400 % x min		39		
	> 400 % x min		-- ²⁾		
30	Diagram in appendix		--		
31	<u>Residual lengths</u>		41	41	
	Single values	cm	42	41	
	32	Average values	cm	41	
33	Photo of the specimen on page		--		
34	<u>Smoke temperature</u>				
	Maximum value of the averaged values °C		114		
	35	Time ¹⁾	min : s	9:45	
36	Diagram in appendix Nr.		--		
37	<u>Remarks:</u> For the test the self-adhesive foils were glued onto steel sheets with a thickness of 0.88 mm. The test results were taken of the test report no. 230008447-4 of 03.07.2012. 2) did not occur				

Results of the Brandschacht test (part 1)					
row-no.	Film type 2D Transparent Matt P	measurements test specimen			
		A2	B2	C2	
1	<u>No. of test specimen arrangement according to DIN 4102, part 15, table 1</u>	--	--	--	
2	<u>Max. flame height above bottom edge</u>	70	70	70	
	cm				
	Time ¹⁾	1:00	1:00	1:00	
	min : s				
4	<u>Melt through / burn through</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	Time ¹⁾				
	min : s				
5	<u>Observations on the backside of the specimens</u>				
	Flames/smouldering	-- ²⁾	-- ²⁾	-- ²⁾	
6	Time ¹⁾				
	min : s	10:00	10:00	10:00	
7	<u>Burning droplets</u>				
	Start ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
8	<u>Extent</u>				
	sporadic burning droplets	-- ²⁾	-- ²⁾	-- ²⁾	
9	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
	<u>Falling particles which burns</u>				
10	Start ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
11	sporadic falling parts	-- ²⁾	-- ²⁾	-- ²⁾	
	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
12	Duration of the burning on the screen bottom (max.)	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
14	<u>Interference of the burner flame by dripping /falling particles</u>				
	Time ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
15	<u>Early termination of the test</u>				
	End of burning at the specimen ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
16	min : s				
	Time of early cancellation of the test ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				

¹⁾ Time counting from the start of the test

Results of the Brandschachttest (part 2)							
row-no.		measurements test specimen					
		A2		B2		C2	
	<u>Continuous burning after termination of the test</u>						
17	Duration min : s	--2)	--2)	--2)	--2)	--2)	
18	Number of specimens	--2)	--2)	--2)	--2)	--2)	
19	Front side of the specimen	--2)	--2)	--2)	--2)	--2)	
20	Back side of the specimen	--2)	--2)	--2)	--2)	--2)	
21	Flame length cm	--2)	--2)	--2)	--2)	--2)	
	<u>Smouldering after termination of the test</u>						
22	Duration min : s	--2)	--2)	--2)	--2)	--2)	
23	Number of specimens	--2)	--2)	--2)	--2)	--2)	
	<u>Location</u>						
24	Lower half of the specimens	--2)	--2)	--2)	--2)	--2)	
25	Upper half of the specimens	--2)	--2)	--2)	--2)	--2)	
26	Front side of the specimen	--2)	--2)	--2)	--2)	--2)	
27	Backside of the specimen	--2)	--2)	--2)	--2)	--2)	
	<u>Smoke development</u>						
28	≤ 400 % x min	26	37	36			
29	> 400 % x min	--2)	--2)	--2)			
30	Diagram in appendix	--	--	--			
	<u>Residual lengths</u>	38	39	36	39	37	41
31	Single values cm	40	39	38	37	40	40
32	Average values cm	39	38	40			
33	Photo of the specimen on page	--	--	--			
	<u>Smoke temperature</u>						
34	Maximum value of the averaged values °C	117	115	116			
35	Time ¹⁾ min : s	9:26	9:58	9:36			
36	Diagram in appendix Nr.	--	--	--			
37	<u>Remarks:</u> For the test the self-adhesive foils were glued onto steel sheets with a thickness of 0.88 mm. The test results were taken of the test report no. 230008447-4 of 03.07.2012. 2) did not occur						

Results of the Brandschacht test (part 1)					
row-no.	Film type 2D Matt P	measurements test specimen			
		A3	B3	C3	
1	<u>No. of test specimen arrangement according to DIN 4102, part 15, table 1</u>	--	--	--	
2	<u>Max. flame height above bottom edge</u>	80	80	100	
	cm				
	<u>Time</u> ¹⁾	1:00	1:30	1:00	
	min : s				
4	<u>Melt through / burn through</u>	-- ²⁾	-- ²⁾	-- ²⁾	
5	<u>Time</u> ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
6	<u>Observations on the backside of the specimens</u>				
	Flames/smouldering				
7	<u>Time</u> ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
8	<u>Discolouration</u>	10:00	10:00	10:00	
	<u>Time</u> ¹⁾				
9	<u>min : s</u>				
	<u>Burning droplets</u>	-- ²⁾	-- ²⁾	-- ²⁾	
10	<u>Start</u> ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
11	<u>Extent</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	sporadic burning droplets	-- ²⁾	-- ²⁾	-- ²⁾	
12	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
	<u>Falling particles which burns</u>				
13	<u>Start</u> ¹⁾	1:14	1:05	0:37	
	min : s				
14	sporadic falling parts	x	x	x	
	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
15	<u>Duration of the burning on the screen bottom (max.)</u>	0:06	0:01	0:04	
	min : s				
16	<u>Interference of the burner flame by dripping /falling particles</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	<u>Time</u> ¹⁾				
17	<u>min : s</u>				
	<u>Early termination of the test</u>				
18	<u>End of burning at the specimen</u> ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
19	<u>Time of early cancellation of the test</u> ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				

¹⁾ Time counting from the start of the test

row-no.		Results of the Brandschachttest (part 2)						
		measurements test specimen						
		A3	B3	C3				
17	<u>Continuous burning after termination of the test</u>							
	Duration	min : s	-- ²⁾	-- ²⁾	-- ²⁾			
	18	Number of specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	19	Front side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
	20	Back side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
21	Flame length	cm	-- ²⁾	-- ²⁾	-- ²⁾			
22	<u>Smouldering after termination of the test</u>							
	Duration	min : s	-- ²⁾	-- ²⁾	-- ²⁾			
	23	Number of specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	<u>Location</u>							
	24	Lower half of the specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	25	Upper half of the specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	26	Front side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
27	Backside of the specimen	-- ²⁾	-- ²⁾	-- ²⁾				
28	<u>Smoke development</u>							
	≤ 400 % x min		73	76	79			
	> 400 % x min		-- ²⁾	-- ²⁾	-- ²⁾			
30	Diagram in appendix	--	--	--				
31	<u>Residual lengths</u>							
	Single values	cm	31	30	32	32	32	33
			33	32	34	32	35	34
32	Average values	cm	32	33	34			
33	Photo of the specimen on page		--	--	--			
34	<u>Smoke temperature</u>							
	Maximum value of the averaged values °C		124	121	125			
	35	Time ¹⁾	min : s	1:30	1:27	1:17		
36	Diagram in appendix Nr.		--	--	--			
37	<u>Remarks:</u>							
<p>Test specimen A: The film was printed with red solvent-ink and was covered finally with the laminate film 2D Lam Matt. The film compound was flamed in production direction.</p> <p>Test specimen B: The film was printed with red latex-ink and was covered finally with the laminate film 2D Lam Matt. The film compound was flamed across the production direction.</p> <p>Test specimen C: The film was printed with black latex-ink and was covered finally with the laminate film 2D Lam Matt. The film compound was flamed in production direction.</p> <p>2) did not occur</p>								

Results of the Brandschacht test (part 1)					
row-no.	Film type 2D Matt P	measurements test specimen			
		A4	B4	C4	
1	<u>No. of test specimen arrangement according to DIN 4102, part 15, table 1</u>	--	--	--	
2	<u>Max. flame height above bottom edge</u>	80	90	90	
	cm				
	Time ¹⁾	2:00	1:30	1:30	
	min : s				
4	<u>Melt through / burn through</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	Time ¹⁾				
	min : s				
5	<u>Observations on the backside of the specimens</u>				
	Flames/smouldering	-- ²⁾	-- ²⁾	-- ²⁾	
	Time ¹⁾				
	min : s				
6	Discolouration	10:00	10:00	10:00	
	Time ¹⁾				
	min : s				
7	<u>Burning droplets</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	Start ¹⁾				
	min : s				
8	<u>Extent</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	sporadic burning droplets				
9	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
10	<u>Falling particles which burns</u>	0:47	-- ²⁾	0:38	
	Start ¹⁾				
	min : s				
11	sporadic falling parts	x	-- ²⁾	x	
12	continually falling particles	-- ²⁾	-- ²⁾	-- ²⁾	
13	Duration of the burning on the screen bottom (max.)	0:09	-- ²⁾	0:02	
	min : s				
14	<u>Interference of the burner flame by dripping /falling particles</u>	-- ²⁾	-- ²⁾	-- ²⁾	
	Time ¹⁾				
	min : s				
15	<u>Early termination of the test</u>				
	End of burning at the specimen ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				
16	Time of early cancellation of the test ¹⁾	-- ²⁾	-- ²⁾	-- ²⁾	
	min : s				

¹⁾ Time counting from the start of the test

row-no.		Results of the Brandschachttest (part 2)						
		measurements test specimen						
		A4	B4	C4				
17	<u>Continuous burning after termination of the test</u>							
	Duration	min : s	-- ²⁾	-- ²⁾	-- ²⁾			
	18	Number of specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	19	Front side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
	20	Back side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
21	Flame length	cm	-- ²⁾	-- ²⁾	-- ²⁾			
22	<u>Smouldering after termination of the test</u>							
	Duration	min : s	-- ²⁾	-- ²⁾	-- ²⁾			
	23	Number of specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	<u>Location</u>							
	24	Lower half of the specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	25	Upper half of the specimens	-- ²⁾	-- ²⁾	-- ²⁾			
	26	Front side of the specimen	-- ²⁾	-- ²⁾	-- ²⁾			
27	Backside of the specimen	-- ²⁾	-- ²⁾	-- ²⁾				
28	<u>Smoke development</u>							
	≤ 400 % x min		59	75	79			
	> 400 % x min		-- ²⁾	-- ²⁾	-- ²⁾			
30	Diagram in appendix		1	--				
31	<u>Residual lengths</u>		29	30	32	31	29	26
	Single values	cm	30	30	31	33	29	28
	32	Average values	cm	30	32	28		
33	Photo of the specimen on page		11	--	--			
34	<u>Smoke temperature</u>							
	Maximum value of the averaged values	°C	120	129	125			
	35	Time ¹⁾	min : s	1:36	1:19	1:20		
36	Diagram in appendix Nr.		--	1	--			
37	<u>Remarks:</u>							
<p>The film was printed with red latex-ink and was covered finally with the laminate film 2D Lam Matt. The film compound was flamed in production direction.</p> <p>2) did not occur</p>								



Picture 1: Appearance of specimen A4 after the test

Results of the B2-testing according to DIN 4102-01

(Tests with flaming the edge)

Protection of edges: --

Point of flame attack: lower edge of the front side, flaming of the film type 2D Gloss PG glued on 0.88 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	--	--	--	1	1
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	--	--	--	2	2
Max. height of the flame (cm)	0	0	0	1	1
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	not observable				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Remark: The test results were taken of the test report no. 230008447-4 of 03.07.2012.

Results of the B2-testing according to DIN 4102-01

(Tests with flaming the edge)

Protection of edges: --
 Point of flame attack: lower edge of the front side, flaming of the film type 2D Transparent Matt P glued on 0.88 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	1	--	--	--	--
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	3	--	--	--	--
Max. height of the flame (cm)	1	0	0	0	0
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	very low				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Remark: The test results were taken of the test report no. 230008447-4 of 03.07.2012.

Point of flame attack: lower edge of the front side, flaming of the film type 2D Matt P in production direction printed with red solvent-ink and finally covered with the laminate film 2D Lam Matt glued on 0.75 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	1	1	1	1	1
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	15	15	15	15	15
Max. height of the flame (cm)	3	3	3	3	3
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	low				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Point of flame attack: lower edge of the front side, flaming of the film type 2D Matt P in production direction printed with red latex-ink and finally covered with the laminate film 2D Lam Matt glued on 0.75 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	1	1	1	1	1
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	15	15	15	15	15
Max. height of the flame (cm)	3	3	3	3	3
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	very low				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Point of flame attack: lower edge of the front side, flaming of the film type 2D Matt P across the production direction printed with red latex-ink and finally covered with the laminate film 2D Lam Matt glued on 0.75 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	1	1	1	1	1
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	15	15	15	15	15
Max. height of the flame (cm)	3	3	3	3	3
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	low				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Point of flame attack: lower edge of the front side, flaming of the film type 2D Matt P in production direction printed with black latex-ink and finally covered with the laminate film 2D Lam Matt glued on 0.75 mm thick steel sheets

Specimen No.	1	2	3	4	5
(Times stated from start of test)					
Ignition (s)	--	1	1	--	1
Flame passing the limit mark (s)	--	--	--	--	--
Self extinguishment (s)	--	3	3	--	2
Max. height of the flame (cm)	0	1	1	0	1
Continuous burning after 20 s	--	--	--	--	--
Continuous smouldering after 20 s	--	--	--	--	--
Extinguishment of flames / glowing after passing the limit mark	--	--	--	--	--
Smoke development (visual observation)	very low				
Falling of burning particles / droplets time (s)	--	--	--	--	--

Due to the low flame heights by flaming the edge negative results by flaming the surface are not expected. By this reason tests with flaming the surface were not necessary according to DIN 4102-1 section 6.2.5.3.

Assessment

- The products described on the pages 2 till 5 fulfilled the requirements of building products according to Baustoffklasse B2. According to the results, the products as tested in the described arrangement also fulfil the requirements of building products according to Baustoffklasse B1. In consequence the products can be classified as

Baustoffklasse B1 (schwerentflammbare Baustoffe)

according to DIN 4102 part 1 (Mai 1998). This assessment is only valid, if the films are glued on steel substrate. The surface of the self-adhesive films may be printed with solvent-inks respectively latex-inks and may be finally covered with the laminate films „Coala 2D Lam Gloss“ respectively „Coala 2D Lam Matt“. The resistance of the fire behaviour against climatic influences in the outside was not proofed. Therefore the product may be used as schwerentflammbar only inside of buildings or in otherwise weather protected areas.

- The material does not produce burning droplets / particles.

Special remark

- The validity of this test certificate ends on 02.07.2022. The period of validity can be extended on application.
- Since the above mentioned material is used for markings, letterings and decorations, it is no building product according to §2 chapter 9 no. 1 MBO. An allgemeines bauaufsichtliches Prüfzeugnis of the test institute respectively an allgemeine bauaufsichtliche Zulassung of Deutsches Institut für Bau-technik, Berlin is not necessary.
- This test certificate is not the requested approval, if the tested material is used as building product according to the German building regulations.

Marking

The above mentioned materials have to be marked as following:

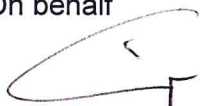
- “Only schwerentflammbar (class DIN 4102-B1) glued on steel substrate”

The marking shall be done on the material, on an enclosed paper or on the packaging or, if this would be too difficult, on the delivery-note or on an enclosure to the delivery-note.

This test certificate is solely valid in combination with the original test certificate issued in German language and dated of 30.11.2018. In case of doubt, the certificate issued in German language is valid solely.

Erwitte, 30.11.2018

On behalf



Dipl.-Ing. Schreiner

Assistant Head of testing body

Date of issue of this English version: 30.11.2018



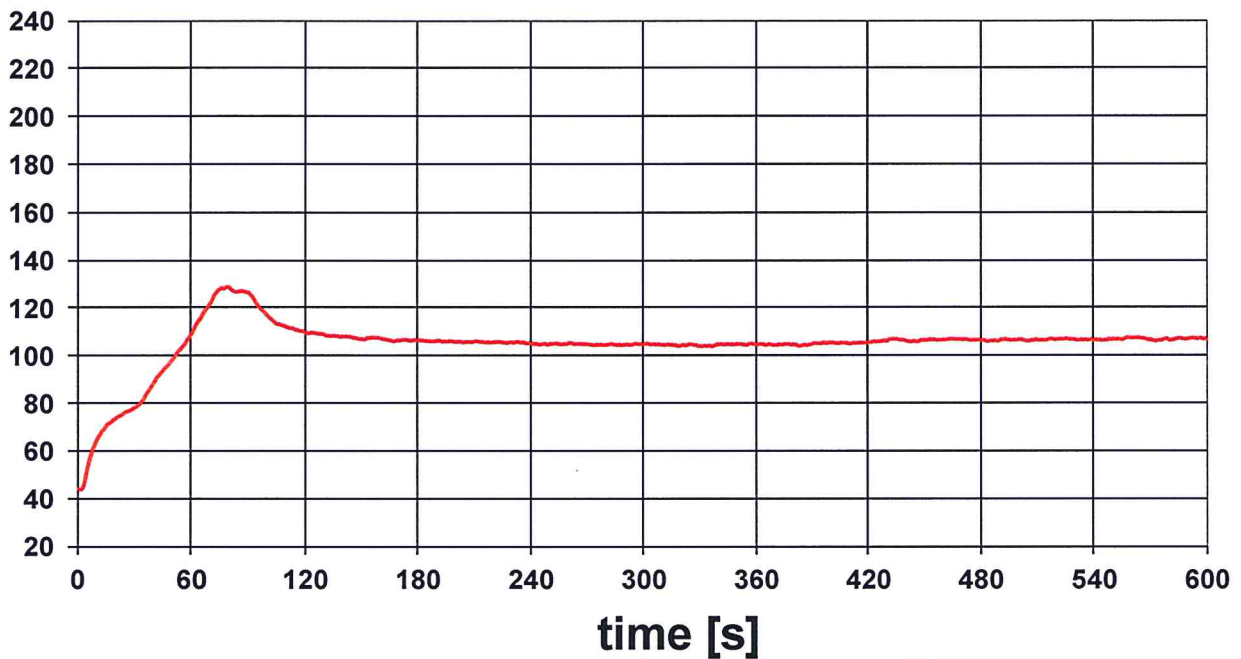
Max. flue gas-temperature = 129 °C
at [min : s] 01 : 19

Smoke-development [% x min]: 75

Enclosure 1 of test report
no. 230011640 of 30.11.2018

T [°C]

Average flue gas-temperature



RD [%]

Smoke-development

