

Test report No. 200155

for applying of a required “Verwendbarkeitsnachweis”
issued 16.03.2020

Applicant: SIMONA AG
Teichweg 16

D – 55606 Kirn

Date of order: 07.02.2020
Date of sampling: *no official sampling of the specimen by a representative of Warringtonfire Frankfurt GmbH*
Date of arrival: 24.02.2020
Date of test: 09.03.2020

Order

Testing of the flammability (building class B1) according to DIN 4102-1 (May 1998)

Description / designation of the test object

Product name: SIMONA® SIMOLUX, glasklar

Description of the relevant test procedure

DIN 4102 part 1 (Mai 1998)

This test report does not replace the required „Verwendbarkeitsnachweis“. It is only used for issuing the “Verwendbarkeitsnachweis”.

1. Description of the test material

1.1 Details of the customer:

Product name: SIMONA® SIMOLUX, glasklar

Face to be tested: both sides equivalent

Product description:

Transparent copolyester sheets(PETG)

Thickness: 1,27 g/cm³

Thickness range: 1mm bis 8 mm

Intended end use of product: Exhibition stand construction, advertising and sales display

1.2 By Warringtonfire Frankfurt GmbH determined values:

Samples as in the description of the customer

Colour:	crystal clear	crystal clear
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Thickness:	1,07 mm	7,88 mm
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Square weight:	1,363 g/m ²	10,15 kg/m ²
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Testing after storing 14- days under climatic conditions (23°C / 50 % rel. humidity).

2. Test results

2.1. Brandschachtprüfung according to DIN 4102-1

Sample A: Material tested in production direction.

Thickness: 1,07 mm

Sample B: Material tested cross to production direction.

Thickness: 7,88 mm

Test results of the Brandschacht tests part 1						
line no.		Measurements test sample				
			A	B	C	D
1	<u>no. test arrangement according to DIN 4102 part 15, table 1</u>		1	1		
2	<u>flame height max. over lower sample edge</u> time ¹⁾	cm	40	40		
		min : s	00:33	03:00		
3	<u>ascertainments on the front side</u> Flaming/glowing time ¹⁾	min : s	00:18	00:53		
4	<u>melting / burning through</u> time ¹⁾	min : s	00:23	03:51		
5	<u>ascertainments on the back side</u> Flaming/glowing time ¹⁾	min : s	no	no		
6	discolouring time ¹⁾	min : s	no	no		
7	<u>burning droplets</u> begin ¹⁾	min : s	01:01	03:37		
8	extent					
9	occasional dropping of material		yes	yes		
10	constant dropping of material		no			
10	<u>separating from burning sample parts</u> begin ¹⁾	min : s	no	no		
11	occasional separating parts					
12	constant separating parts					
13	duration of burning on the sieve tray (max.)	min : s	no	no		
14	influence on the burner flame by dropping of / separating material time ¹⁾	min : s	no	no		
15	<u>earlier end of test</u> end of the fire scenario on the sample ¹⁾	min : s	no	no		
16	time of a possible resulted test stop ¹⁾	min : s				

¹⁾ time from start of test

Test results of the Brandschacht tests part 2						
line no.			Measurements test sample			
			A	B	C	D
17	<u>flaming after end of test</u>	min : s	no	no		
18	duration		no	no		
19	number of sample		no	no		
20	front side of sample		no	no		
21	backside of sample	cm	no	no		
21	flame length		no	no		
22	<u>glowing after end of test</u>	min . s	--/--	--/--		
23	duration		no	no		
23	number of sample		no	no		
24	place of occurrence		no	no		
25	lower sample part		no	no		
26	upper sample part		no	no		
27	front side of sample		no	no		
28	<u>smoke density</u>					
29	< 400 % x min		20	15		
30	> 440 % x min		--/--	--/--		
30	diagram in annex no.		1	2		
31	<u>residual length</u>	cm				
31	single results		55 / 58 60 / 60	66 / 66 65 / 65		
32	average of the single results	cm	58	65		
33	photo of the sample on page		5	5		
34	<u>smoke temperature</u>	°C				
35	max. of the average results		109	109		
35	time ¹⁾		09:45	09:27		
36	diagram in annex no.		1	2		

¹⁾ time from start of test

Remarks: As the residual length was > 45 cm during the Brandschacht test, no further tests were necessary according to DIN 4102-16.

Peeled of red film

2.1.2 Appearance of the specimen after the test:



Sample A



Sample B

2.3 Normal flammability test according to DIN 4102-1

Test with edge ignition without deposit
Flame application on: lower sample edge
Edge ignition

Thickness 1 mm

Sample-no.	1	2	3	4	5
Time from start of test					
Ignition point [s]	1	1	1	1	1
Reaching the measuring mark within 20 seconds	no	no	no	no	no
Self-extinguishing of the flame [s]	15	15	23	-	-
Max. flame height [mm]	40	40	40	40	40
Time [s]	8	8	8	8	8
End of afterflaming [s]	-	-	8	>10	>10
End of afterglowing [s]	-	-	-	-	-
Flames extinguished after [s]	-	-	-	25	25
Smoke development (visual impression) _{low / moderate / strong}	strong smoke development				
Separating from burning material	yes	yes	yes	yes	yes
Time [s]	8	10	10	9	10

Remarks: Peeled of red film

Burning droplets

Thickness 8 mm

Sample-no.	1	2	3	4	5
Time from start of test					
Ignition point [s]	1	1	1	1	1
Reaching the measuring mark within 20 seconds	no	no	no	no	no
Self-extinguishing of the flame [s]	15	15	16	17	16
Max. flame height [mm]	20	20	20	20	20
Time [s]	8	8	8	8	8
End of afterflaming [s]	-	-	1	2	1
End of afterglowing [s]	-	-	-	-	-
Flames extinguished after [s]	-	-	-	-	-
Smoke development (visual impression) _{low / moderate / strong}	strong smoke development				
Separating from burning material	no	no	no	no	no
Time [s]	-	-	-	-	-

Remarks: Peeled of red film

3. Appearance of the sample after the small burner test:



Assessment

The material described in chapter one fulfils the requirements of the building class B2 according to DIN 4102-1 (Mai 1998).

The determined test results show that the material also fulfils the requirements

of the building class B1

Burning droplets

according to DIN 4102-1 (Mai 1998).

Special note

The fire test result is only valid for the material described in chapter one in the tested colour, range of thickness from 1 mm up to 8 mm and surface weight.

The test was carried out in free hanging configuration.

The distance to other plane material must be more or equal then 40 mm.

The material wasn't tested after an outside storage.

In combination with other materials (for example coatings, deposits) the burning behaviour could be influenced unfavourable so that the classification above is not valid any longer. According to DIN 4102-1 the burning behaviour in combination with other materials has to be tested separately.

This test report does not replace the required „Verwendbarkeitsnachweis“. It is only used for issuing the „Verwendbarkeitsnachweis“.

Frankfurt, the 16th March 2020



H. Anders
Tester in Charge



P. Scheinkönig
Prüfstellenleiter Bau-PVO



This Test report is valid until 08.03.2025.

The results of the tests relate only to the behaviour of the test specimen which is designated on the top.

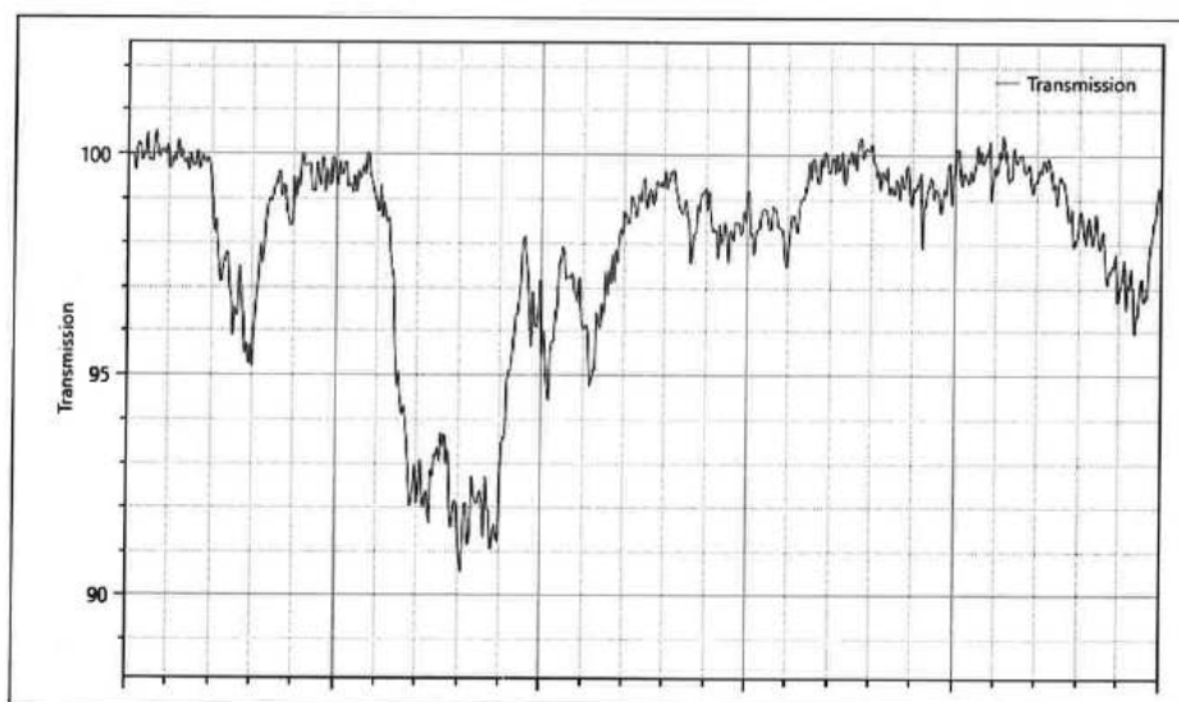
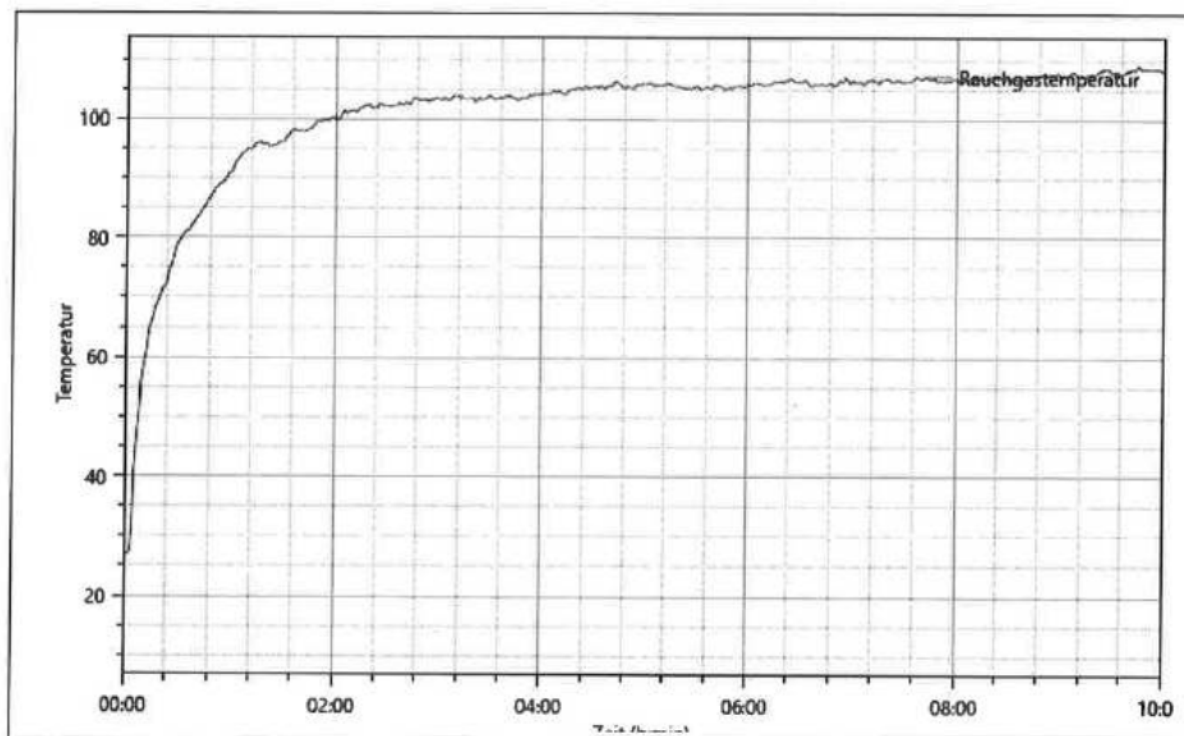
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This test report is a translation of the German version 200155-1 (issued 16.03.2020). In case of doubt only the German version is valid

This test report contains 8 pages and 2 annexes.

Annex 1 to the Test report No. 200155 issued 16.03.2020

Sample A:



Annex 2 to the Test report No. 200155 issued 16.03.2020

Sample B:

