

# Test report No. 200247-1

for applying of a required “Verwendbarkeitsnachweis”  
issued 10.03.2020

**Applicant:** Plastica Alfa S.p.a., C.da S.M.  
Poggiarelli 95041  
Caltagirone (CT), Italy

**Date of order:** 28.01.2020  
**Date of sampling:** *no official sampling of the specimen by a representative of Warringtonfire Frankfurt GmbH*  
**Date of arrival:** 21.02.2020  
**Date of test:** 06.03.2020

## Order

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

## Description / designation of the test object

Product name: Alfaidro NOFIRE PP-RCT pipes and fittings

## 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”.



## 2. Test results

### 2.1. Brandschachtprüfung according to DIN 4102-1

Sample A: Material tested in production direction.

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			
2	<u>flame height max. over lower sample edge</u> time <sup>1)</sup>	cm	50			
		min : s	02:31			
3	<u>ascertainments on the front side</u> Flaming/glowing time <sup>1)</sup>	min : s	00:12			
4	<u>melting / burning through</u> time <sup>1)</sup>	min : s	no			
5	<u>ascertainments on the back side</u> Flaming/glowing time <sup>1)</sup>	min : s	no			
		min : s	no			
6	discolouring time <sup>1)</sup>	min : s	no			
7	<u>burning droplets</u> begin <sup>1)</sup>	min : s	01:51			
8	extent					
9	occasional dropping of material		no			
9	constant dropping of material		yes			
10	<u>separating from burning sample parts</u> begin <sup>1)</sup>	min : s				
			no			
11	occasional separating parts					
12	constant separating parts					
13	duration of burning on the sieve tray (max.)	min : s	no			
14	influence on the burner flame by dropping of / separating material time <sup>1)</sup>	min : s	no			
15	<u>earlier end of test</u> end of the fire scenario on the sample <sup>1)</sup>	min : s				
16	time of a possible resulted test stop <sup>1)</sup>	min : s	no			
		min : s				

<sup>1)</sup> 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> duration	min : s	01:41		
18	number of sample		2		
19	front side of sample		yes		
20	backside of sample		no		
21	flame length	cm	10		
22	<u>glowing after end of test</u> duration	min . s	--/--		
23	number of sample		no		
	place of occurrence		no		
24	lower sample part		no		
25	upper sample part		no		
26	front side of sample		no		
27	backside of sample		no		
28	<u>smoke density</u> < 400 % x min		90		
29	> 440 % x min		--/--		
30	<u>diagram in annex no.</u>		1		
31	<u>residual length</u> single results	cm	53 / 54 54 / 53		
32	average of the single results	cm	53		
33	photo of the sample on page		5		
34	<u>smoke temperature</u> max. of the average results	°C	112		
35	time <sup>1)</sup>	min : s	04:07		
36	diagram in annex no.		1		

<sup>1)</sup> 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.

Material attached to 10 mm thick fiber cement board.

2.1.2 Appearance of the specimen after the test:



Sample A

2.3 Normal flammability test according to DIN 4102-1

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

Edge ignition

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	15	15	15
Max. flame height [mm]	30	30	30	30	30
Time [s]	10	10	10	10	10
End of afterflaming [s]	-	-	-	-	-
End of afterglowing [s]	-	-	-	-	-
Flames extinguished after [s]	-	-	-	-	-
Smoke development (visual impression) <sub>low / moderate / strong</sub>	low smoke development				
Separating from burning material	no	no	no	no	no
Time [s]	-	-	-	-	-

Remarks:

Surface ignition Connecting seam (fitting)

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	15	15	15
Max. flame height [mm]	30	30	30	30	30
Time [s]	10	10	10	10	10
End of afterflaming [s]	-	-	-	-	-
End of afterglowing [s]	-	-	-	-	-
Flames extinguished after [s]	-	-	-	-	-
Smoke development (visual impression) <sub>low / moderate / strong</sub>	low smoke development				
Separating from burning material	no	no	no	no	no
Time [s]	-	-	-	-	-

Remarks:

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

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, wall thickness and diameter, at 10 mm distance to other flat materials of the classes A1 and A2 according to DIN 4102-1 or DIN EN 13501-1. (raw density of  $\geq 1800 \pm 200 \text{ kg/m}^3$ ).

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”.

This test report replaces the report 200247 issued 10.03.2020 (date of signature) which is no longer valid.

Frankfurt, the 22<sup>th</sup> April 2020



H. Anders  
Tester in Charge



P. Scheinkönig  
Prüfstellenleiter Bau-PVO



This Test report is valid until 05.03.2025.

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

Test reports are only allowed to be published or reproduced, not changed in form and tenor without permission of the Warringtonfire Frankfurt GmbH. The abridged account of a test report is only allowed with the agreement of the Warringtonfire Frankfurt GmbH.

This test report is a translation of the German version 200247-1 (issued 10.03.2020). In case of doubt only the German version is valid

This test report contains 8 pages and 1 annex..



Annex 1 to the Test report No. 200247 issued 10.03.2020\_\_

Sample A:

