

No. AJFS1912013602FF Date: JAN.13, 2020

20 Page 1 of 6

CHENGDU FORESIGHT COMPOSITE CO., LTD

FOUR GROUPS, GUANGMING VILLAGE, LONGTAN TOWNSHIP, CHENGHUA DISTRICT, CHENGDU CITY, SICHUAN PROVINCE, P. R. CHINA

The following sample(s) was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion. results apply to the sample as received.
Sample Description: PVC FABRIC MATERIAL
Color: YELLOW
Density: 660 g/m2
Composition: PVC POLYESTER FIBER
Style/ltem No.: /

Test Requested:

To determine the flammability (building materials class B1) in accordance with DIN 4102-1 (May 1998) Fire behaviour of building materials and elements Part 1: Classification of building materials, Requirements and testing

Test Results: -- See attached sheet --

<u>Classification</u>: The tested sample **meets** class **B1** building materials requirements of DIN 4102-1 (May 1998).

Test Period:

Sample Receiving Date	:	DEC.26, 2019
Test Performing Date	:	DEC.26, 2019 TO JAN.08, 2020

Signed for and on behalf of SGS-CSTC Co., Ltd. Anji Branch

Allen Zou Lab Manager





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Sarvice printed overleaf, available on request or accessible at http://www.sgs.com/an/Terms.and-Conditions.aspx and, for electronic Oncuments aspx. Attention is drawn to the limitation of liability, indeminification and jurisdiciton issues defined therein. Any holder of this document is a visit document is a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without proprior written approval of the Company. Any unauthorized alteration, forgery or faisification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fulles extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention:To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443. or email: CN.Doccheck@ass.com



No. AJFS1912013602FF Date: JAN.13, 2020 Page 2 of 6

I. Test conducted

This test was conducted as per DIN 4102-15:1990 DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2, and Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials.

II. Sample details

General description	PVC Fabric
Color	Yellow
Area Density	About 624 g/m ²
Size of sample	190mm×1000mm & 190mm×90mm

Conditioning

Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2

°C, and a relative humidity of 50 ± 6 %.

III. Test results

1) "Brandschacht" Test according to DIN 4102-15 &16

Exposed surface: The front face

Results of "Brandschacht" Test (part 1)							
Line		Unit	Test assemblies No.				
No.		Unit	Lengthwise	Widthwise			
1	Specimen fixings according to DIN 4102 part 15, table	/	1	1			
2	Max. flame height above lower sample edge;	cm	50	50			
3	Time ¹⁾	min:s	00:49	00:46			
	Melting/burning through		Yes	Yes			
4	Time ¹⁾	min:s	00:04	00:03			
	Back of specimen		/	/			
5	Flaming/glowing, Time ¹⁾	min:s	00:04	00:03			
6	Discolouring, Time ¹⁾ min		00:01	00:02			
	Burning droplets		No	No			
7	Begin 1)	min:s	/	/			
	Amount		/	/			
8	Specimen material falling off in separate droplets		/	/			
9	Specimen material falling off continuously		/	/			

To be continued...



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@egs.com



No. AJFS1912013602FF

Date: JAN.13, 2020

Page 3 of 6

Results of "Brandschacht" Test (part 2)							
Line			Test assemblies No.				
No.		Unit	Lengthwise	Widthwise			
	Burning parts		No	No			
10	Begin 1)	min:s	/	/			
11	Parts of sample falling off separately		/	/			
12	Parts of sample falling off continuously		/	/			
13	Duration of continued combustion on mesh base (max.)	min:s	No	No			
	Burner flame impairment by dripping/falling material		No	No			
14	Time ¹⁾	min:s	/	/			
	Premature ending of test		/	/			
15	End of burning at specimen ¹⁾	min:s	/	/			
16	Time when test terminated (if applicable) ¹⁾	min:s	/	/			
	Burning after end of test		No	No			
17	Duration	min:s	/	/			
18	Number of specimens		/	/			
19	Front of specimen		/	/			
20	Back of specimen		/	/			
21	Height of flame	cm	/	/			
	Glowing after end of test		No	No			
22	Duration	min:s	/	/			
23	Number of specimens		/	/			
24	Front of specimen		/	/			
25	Back of specimen		/	/			
26	Top half of specimen		/	/			
27	Bottom half of specimen		/	/			

To be continued...



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx. Attention is drawn to the limitation of liability, indermification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document cannot be reproduced except in full, without prior written approval of the Company, any unauthorized alteration, forgery or faisification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fulleet steint of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or remail: CM.Doccheck@sgs.com



No. AJFS1912013602FF

FF Date: JAN.13, 2020

Page 4 of 6

Results of "Brandschacht" Test (part 3)									
Line	Unit		Test assemblies No.						
No.		Unit	Lengthwise		Widthwise				
	Residual length		/		/				
28	28 Single results	cm	68	61	63	63			
20			64	60	64	61			
29	Average of the single results	cm	63.3		62.8				
	Smoke temperature		/		/				
30	Max. of average	°C	148.7		152.3				
31	Time ¹⁾	min:s	06:12		07:00				

Note: ¹⁾ time from start of testing

*Reduction in number of test (DIN 4102 Part 16, clause 5.2)

Class B1 materials:

If the residual length measured after the first test is 45cm or greater, further tests are not required.

2) Normal Flammability Test according to DIN 4102-1 Clause 6.2

Edge ignition

Fire application time: 15s

Parameter	Lengthwise					Crosswise				
	1	2	3	4	5	6	7	8	9	10
Whether or not flaming extinguished before reach the gauge mark(Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether or not flaming reach the measuring mark within 20 seconds (Yes/No)	No	No	No	No	No	No	No	No	No	No
Time for the flame tip to reach the gauge mark(s)	No	No	No	No	No	No	No	No	No	No
Afterflame time (s)	0	3	2	1	0	3	2	2	2	3
Max. flame height (cm)	6	7	7	8	6	4	4	5	3	6
Molten dripping (Yes/No)	No	No	No	No	No	No	No	No	No	No
Smoke developments (visual impression)	Medium			Medium						

To be continued...



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions</u>, Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the site. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@gss.com



Test Report No. AJFS1912013602FF Date: JAN.13, 2020 Page 5 of 6

IV. DIN 4102-1:1998 Criteria for classification

- 1) All materials, except flooring, may be classed as **B1** materials if they meet the following requirements a) and b):
- a) The test using the 'Brandschacht' apparatus described in DIN 4102-15 (cf. subclause 6.1.3.1) shall be deemed passed if

- The mean value for the residual length (portion of specimen that has not burned or charred; cf. subclause

9.1 of DIN 4102-16) of each specimen is at least 15 cm and no individual values are lower than 0 cm,

- The mean effluent temperature does not exceed 200 °C in any test,

- The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.

b) Pass DIN 4102-1: 1998 sub-clause 6.2.3 Ignitability Test if

For each specimen, flaming doesn't reach the gage mark within 20s after flame application.

 Materials may be classed as B2 materials if they pass the ignitibility test specified in DIN 4102-1: 1998 subclause 6.2.5.

For each specimen, flaming doesn't reach the gage mark (150mm marks) within 20s after flame application.

3) Combustible materials which cannot be classed as B1 or B2 materials shall be classed as B3 materials.

STATEMENTS:

This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.

This test report does not replace any mandatory certification of the product that may be required.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

To be continued...



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.gs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.gs.com/en/Terms-and-Conditions.aspx and, for electronic Document as the thtp://www.gs.com/en/Terms-and-Conditions/Terms-ap-Comment.aspx and, for electronic format documents, advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document. This document approxed on the reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content cor appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the aw. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are testined for 30 days only. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@gsa.com



No. AJFS1912013602FF

Date: JAN.13, 2020

Page 6 of 6

Photo Appendix:



SGS authenticate the photo on original report only

*** End of Report ***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document is excented there are averaged to except in full, without prior written approval of the Company, any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullese textent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or remail: CN_Doccheck@ssoc.com