

Date: MAR.25, 2022

Page 1 of 6

PROVINCE CHINA.

Sample Name: PVC Flex Banner

Style/Item No.: /

The above 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 arising therefrom. Results apply to the sample as received.

Test Requested:

DIN 4102-1:1998-05 Fire behaviour of building materials and elements Part 1: Classification of building materials, Requirements and testing, Class B1 materials---For all materials except flooring.

Test Results: -- See attached sheet --

Classification: The tested sample meets class B1 materials requirements of DIN 4102-1:1998-05.

**Test Period:** 

Sample Receiving Date

: MAR.10, 2022

Test Performing Date

: MAR.10, 2022 TO MAR.25, 2022

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

Allen Zou

Approved Signatory







Date: MAR.25, 2022

Page 2 of 6

#### I. Test conducted

This test was conducted as per DIN 4102-15:1990 Fire behaviour of building materials and elements – 'Brandschacht' apparatus, DIN 4102-16:2015 Fire behaviour of building materials and elements – 'Brandschacht' tests and DIN 4102-1:1998-05 Clause 6.2.5 and Classification according to DIN 4102-1:1998-05 Clause 6.1 Class B1 materials.

### II. Sample details

General description	PVC Flex Banner (provided by client)				
Color	White				
Area Density	507 g/m <sup>2</sup>	*****			
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  $\pm$  2 °C, and a relative humidity of 50  $\pm$  5 %.

#### III. Test results

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

Exposed surface: Smooth surface

	Results of "Brandscha	acht" Tes	t (part 1)					
Line		Unit		Test assemblies No.				
No.		Offic	Α	В	С	D		
1	Specimen fixings according to DIN 4102 part 15, table	-	1					
2	Max. flame height above lower sample edge;	cm	30					
3	Time 1)	min:s	00:34					
	Melting/burning through		Yes					
4	Time 1)	min:s	00:04					
	Back of specimen		Yes			12271		
5	Flaming/glowing, Time 1)	min:s	00:04					
6	Discolouring, Time 1)	min:s	00:23					
	Burning droplets		Yes					
7	Begin 1)	min:s	00:37					
	Amount	-	1					
8	Specimen material falling off in separate droplets		✓					
9	Specimen material falling off continuously		1					

To be continued...



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printer overleaf, available on requisit or accessible at http://www.sas.com/en/Ferms-and-Conditions.asps.and. for selectronic format documents as the first of the first of the first of the first owners. Attention is drawn to the limitation of Hebitry, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that Information contained harmon 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 sola responsibility is to its Client and this document does not experience to transaction from exercising all their this and obligations under the transaction document. This document cannot be reproduced accept in full, without prior written approval of the Company. Any unsuthorized alteration, forgery or faisification 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 10 check the suthenticity of testing I inspection report 5 certificates, please contact us at telephone:(85-753) 838.



Date: MAR.25, 2022

Page 3 of 6

	Results of "Brandscha	acht" Tes	t (part 2)						
Line		Unit	Test assemblies No.						
No.	T		Α	В	С	D			
	Burning parts		No						
10	Begin 1)	min:s	1						
11	Parts of sample falling off separately		/						
12	Parts of sample falling off continuously		1	Valence of the second	Photo Service				
13	Duration of continued combustion on mesh base (max.)	min:s	No						
	Burner flame impairment by dripping/falling material		No						
14	Time 1)	min:s	1						
	Premature ending of test		1						
15	End of burning at specimen 1)	min:s	1						
16	Time when test terminated (if applicable) 1)	min:s	1						
	Burning after end of test		No						
17	Duration	min:s	1						
18	Number of specimens		1						
19	Front of specimen		1						
20	Back of specimen		1						
21	Height of flame	cm	1		1	All Control of			
	Glowing after end of test		No						
22	Duration	min:s	1						
23	Number of specimens		1						
24	Front of specimen		1						
25	Back of specimen		1						
26	Top half of specimen	(4	1						
27	Bottom half of specimen		1						

To be continued...





Date: MAR.25, 2022

Page 4 of 6

	Results of	"Brandschacht" Tes	t (par	t 3)		2000000			
Line		Unit	Test assemblies No.						
No.		Unit	Α		А В		С		D
	Residual length			00000					
28	Single results	am.	72	70					
	Cingle results	cm	71	72					
29	Average of the single results	cm	7	.3					
	Smoke temperature			1					
30	Max. of average	${\mathbb C}$	14	1.5			3		
31	Time 1)	min:s	04	:07					

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) Ignitibility test according to DIN 4102-1 Clause 6.2.5

Edge ignition

Fire application time: 15s

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

Note: NA---Not applicable

To be continued...





Date: MAR.25, 2022

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 6.2.5 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.

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...

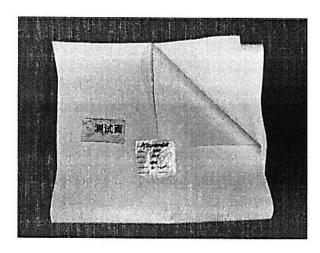




Photo Appendix:

Date: MAR.25, 2022

Page 6 of 6



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*