

No.: SC101121079

Date: Nov. 29, 2010

Page: 1 of 5

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name

BLOCKOUT BANNER

Sample No.

SC101121079

Test Required

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

**Product Specification** 

S-TFW552828B 650gsm

Date of Receipt

Nov. 08, 2010

Test Period

Nov. 08, 2010 to Nov. 29, 2010

Test Result(s)

Please see next pages

Conclusion

The tested sample meets the low flammability requirements of class B1 of

building materials under DIN 4102-1 (May 1998).

There is no fall-off of burning material.

\*\*\*\*\*\* To be continued \*\*\*\*\*\*

Signed for SGS-CSTC Standards Technical Services Co., Ltd

Sally Xie

Authorized signatory

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No.: SC101121079

Date: Nov. 29, 2010

Page: 2 of 5

#### 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. Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials

### II. Sample details

Name	Blockout Banner
Color / Density	White / Approximate 678g/m <sup>2</sup>
Products configuration	Film
Size of sample	1000 mm×190 mm×0.5mm & 190 mm×90 mm×0.5mm

### 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  $\pm$  6 %.

#### III. Test results

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

Orientation: NA, Exposed surface: Face

Line		Unit	Test assemblies No.					
No.			Α	В	С	D		
1	Specimen fixings according to DIN 4102 part 15, table	1	1					
2	Max. flame height above lower sample edge;	cm	28					
3	Time 1)	min:s	4:30					
7	Melting/burning through		es-					
4	Time 1)	min:s	4:05					
60	Back of specimen	- 6,0	- 52	4				
5	Flaming/glowing, Time 1)	min:s	2:31	7 .6		95.		
6	Discolouring, Time 1)	min:s	0:30					
-6	Burning droplets	7	No			46		

\*\*\*\*\*\* To be continued\*\*\*\*\*\*

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No.: SC101121079

Date: Nov. 29, 2010

Page: 3 of 5

Line	그 시간 나를 가득하는 것이다.	Unit	Test assemblies No.					
No.			- A	В	С	D		
7	Begin 1)	min:s	1					
	Amount	97	1					
8	Specimen material falling off in separate droplets		1		50			
9	Specimen material falling off continuously		1					
3"	Burning parts	457	No	S+ c				
10	Begin 1)	min:s	/		6	-677		
11	Parts of sample falling off separately		1			9		
12	Parts of sample falling off continuously		1			Ġ.		
13	Duration of continued combustion on mesh base (max.)	min:s	No	37. 6 Tud.		Taji		
	Burner flame impairment by dripping/falling material		No		7.5			
14	Time 1)	min:s	1			÷		
	Premature ending of test	57	No			1		
15	End of burning at specimen 1)	min:s	1		500	196		
16	Time when test terminated (if applicable) 1)	min:s	1		_ 60			
	Burning after end of test	- 25	No	35	37.14			
17	Duration	min:s	1					
18	Number of specimens	-6						
19	Front of specimen		1		4			
20	Back of specimen		1			1.6		
21	Height of flame	cm	1					
Ž.	Glowing after end of test	gar,	No	- 25				
22	Duration	min:s	1		37			
23	Number of specimens	9 0	1					
24	Front of specimen	.6	1		Y 25			
25	Back of specimen		1			C.		

\*\*\*\*\*\* To be continued\*\*\*\*\*\*

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No.: SC101121079

Date: Nov. 29, 2010

Page: 4 of 5

Line	- 1977 - 1977 - 1987 1987 1987	Unit	Test assemblies No.						
No.		Offit	. A		В		С		D
26	Top half of specimen								
27	Bottom half of specimen		1						
	Residual length	-6- AT	63	/		_65			
00	O'		78	75	_		5		
28	Single results	cm	76	75					4
29	Average of the single results	cm	76		93				
	Smoke temperature		1			4			
30	Max. of average	$^{\circ}$ C	118						
31	Time 1)	min:s	5:01						1

Note: 1) time from start of testing

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

Flame application: [ √ ] bottom edge ignition, [ ] surface ignition

Specimen No.	1	2	3	4	5
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 (cm)	5	5	4	5	5
End of afterflaming (s)	15	15	15	15	15
End of afterglowing (s)	15	15	15	15	15
Molten dripping	No	No	No	No	No
Smoke developments (visual impression)	Slight				

All timings are from start of testing

\*\*\*\*\*\* To be continued\*\*\*\*\*\*

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No.: SC101121079

Date: Nov. 29, 2010

Page: 5 of 5

#### Comments:

[ √ ] DIN 4102-B2; [ ] DIN 4102-B3

Criteria for classification for Class B1 (DIN 4102-1 Clause 6.1.2)

All materials, except flooring, may be classed as B1 materials if they met,

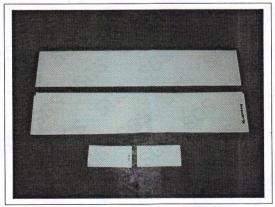
- a) Pass DIN 4102-16 "brandschacht" test if
  - 1) The mean value for the residual length of each specimen is at least 15 cm, and no individual values are lower than 0 cm;
  - 2) The mean effluent temperature does not exceed 200°C in any test;
  - 3) The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.
- Pass DIN 4102-1 Clause 6.2.3 Ignitability Test if,
   For each specimen, flaming doesn't reach the gage mark within 20s after flame application.

### STATEMENTS:

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.

#### Sample photo:



\*\*\*\*\* End of report \*\*\*\*\*\*

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