



No.: SHIN1411047188PS

Date: Dec 16, 2017

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CUSTOMER NAME:

ADDRESS:

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

Sample Name

: COATED BLOCKOUT 440GR

Product Specification

250X250 36X36 440GSM

Product or Lot No.

GLP013-440B1

Buyer

Material and Mark

#1

Other Information

: GLP013-440B1/ COATED BLOCKOUT 440GR

Date of Receipt

Nov 10, 2017

Testing Start Date

Nov 10, 2017

Testing End Date

: Dec 01, 2017

Test result(s)

For further details, please refer to the following page(s)

Signed for

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Zano Lair

Zano Lai

Authorized signatory



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Test Item:

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

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	PVC BANNER
Color / Density	White / 437g/m ²
Size of sample	1000mmx190mm & 190mmx90mm

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 %.



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III. Test results

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

Exposed surface: The front face

Line		Unit	Test assemblies No.			
No.		Unit	Lengthwise	Widthwise		
1	Specimen fixings according to DIN 4102 part 15, table	-1	1	4		
2	Max. flame height above lower sample edge;	cm	50	50		
3	Time 1)	min:s	0:26	0:31		
	Melting/burning through					
4	Time 1)	min:s	0:07	0:09		
	Back of specimen	-				
5	Flaming/glowing, Time 1)	min:s	0:07	0:09		
6	Discolouring, Time 1)	min:s	0:08	0:10		
	Burning droplets		No	No		
7	Begin 1)	min:s	1 -	- 1		
	Amount	4 4 1	1	- 1		
8	Specimen material falling off in separate droplets		1	1		
9	Specimen material falling off continuously		1	1		



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Line	Line		Test assemblies No.			
No.		Unit	Lengthwise	Widthwise		
	Burning parts		No	No		
10	Begin 1)	min:s	-1	1		
11	Parts of sample falling off separately		1	, =		
12	Parts of sample falling off continuously	e 1.	1	1		
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	1	. 1		
	Premature ending of test	-577	1	1		
15	End of burning at specimen 1)	min:s	1	1		
16	Time when test terminated (if applicable) 1)	min:s		1		
	Burning after end of test		No	No		
17	Duration	min:s	1	1		
18	Number of specimens			1		
19	Front of specimen		I	1		
20	Back of specimen		1	1		
21	Height of flame	cm	1	1		
	Glowing after end of test		No	No		
22	Duration	min:s	1	1		
23	Number of specimens	1	1	I = I		
24	Front of specimen		· ·	1		
25	Back of specimen	-**	I	1		
26	Top half of specimen		F	1:		
27	Bottom half of specimen		1	.,		



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Line		Unit	Test assemblies No.			
No.		Unit	Lengthwise		Widthwise	
	Residual length					
28	Single secults	cm	58	57	58	56
	Single results		56	57	56	57
29	Average of the single results	cm	57		56.75	
	Smoke temperature	5-4				
30	Max. of average	°C	147		146	
31	Time 1)	min:s	10:00		10:00	

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

[√] Lengthwise (if applicable)

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	17	16	17	16
Max. flame height (cm)	10	. 11	11	12	11
End of afterflaming (s)	15	17	16	17	16
End of afterglowing (s)	15	17	16	17	16
Molten dripping	No	No	No	No	No
Smoke developments (visual impression)	Slight				



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√] Widthwise (if applicable)

Specimen No.	11	2	3	4	5
Reaching the measuring mark within 20 seconds	No	No	No	No	No
Self extinguishing of the flame (s)	17	16	17	18	17
Max. flame height (cm)	12	10	10	11	11
End of afterflaming (s)	17	16	17	18	7 17
End of afterglowing (s)	17	16	17	18	17
Molten dripping	No	No	No	No.	No
Smoke developments (visual impression)	Slight				

All timings are from start of testing

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.
- b) 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.



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Conclusion: The tested sample meets the low flammability requirements of class B1 of building materials under DIN 4102-1 (May 1998).

Photo Appendix:



The test was performed by SGS internal laboratory.

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



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