Test Report

ZHEJIANG HAILIDE NEW MATERIAL CO., LTD

HAILIDE GATE 3, NO.2 TINGCHAO ROAD JIANSHAN INDUSTRIAL ZONE HAINING CITY ZHEJIANG PROVINCE CHINA.

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

Sample Description: COATING POLYESTER FABRIC

Color: WHITE

Style/Item No.: HTB175

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 –

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

Test Period:

Sample Receiving Date	: JAN.15, 2018
Test Performing Date	: JAN.15, 2018 TO FEB.01, 2018

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

Allen Zou
Technical Manager

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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	Fabric
Color	White
Density	About 183 g/m^2
Size of sample	1000mm×190mm & 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 No.		Unit	Test assemblies No.	
			Lengthwise	Widthwise
1	Specimen fixings according to DIN 4102 part 15, table	/	1	1
2	Max. flame height above lower sample edge;	cm	30	30
3	Time 1)	min:s	00:48	00:45
	Melting/burning through		Yes	Yes
4	Time 1)	min:s	00:03	00:05
	Back of specimen		/	/
5	Flaming/glowing, Time 1)	min:s	00:05	00:06
6	Discolouring, Time 1)	min:s	00:02	00:02
	Burning droplets		Yes	Yes
7	Begin 1)	min:s	00:07	00:08
	Amount		/	/
8	Specimen material falling off in separate droplets		/	/
9	Specimen material falling off continuously		√	√

To be continued…

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Results of "Brandschacht" Test (part 2)				
Line No.		Unit	Test assemblies No.	
			Lengthwise	Widthwise
	Burning parts		Yes	Yes
10	Begin 1)	min:s	00:16	00:22
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…

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Results of "Brandschacht" Test (part 3)						
Line No.		Unit	Test assemblies No.			
			Lengthwise		Widthwise	
	Residual length		/		/	
28	Single results	cm	70	70	72	70
			68	72	70	74
29	Average of the single results	cm	70.0		71.5	
	Smoke temperature		/		/	
30	Max. of average	℃	140.6		138.7	
31	Time [1)]	min:s	07:01		07:12	

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

Bottom 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)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Afterflame time (s)	0	0	0	0	0	0	0	0	0	0
Max. flame height (cm)	6	5	5	6	5	5	5	4	5	5
Molten dripping(Yes/No)	No	No	No	No	No	No	No	No	No	No
Smoke developments (visual impression)	Slight					Slight				

Note:

NA---Not applicable

To be continued…

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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.

2) 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.

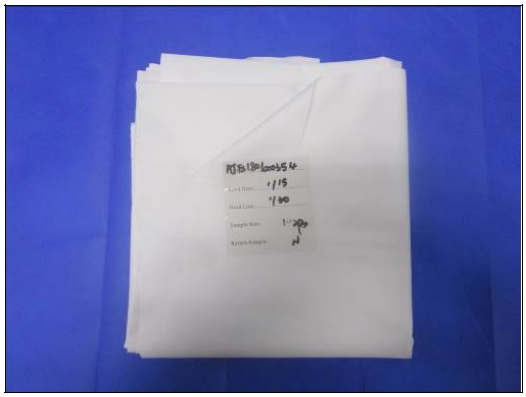
3) Combustible materials which cannot be classed as B1 or B2 materials shall be classed as **B3** materials.

STATEMENTS:

This 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.

Photo Appendix:



SGS authenticate the photo on original report only

*** End of Report ***

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