



TEST REPORT

No. : GZMR120923380-01

Date : Oct. 15, 2012

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BOTO PLASTICS CO., LTD
ECONOMIC DEVELOPMENT ZONE, YIYUAN COUNTY, ZIBO

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

Sample Name : PVC FOAM BOARD
Spec. : 400*300MM
Manufacturer : BOTO PLASTICS CO., LTD
Sample Information : THICKNESS :10MM
SGS Ref No. : GP121020579-3.1, AJD201205453
Test Performed : Selected test(s) as requested by applicant
Date of Receipt : Sep. 14, 2012
Test Period : Sep. 14, 2012 to Sep. 26, 2012

Test result(s) : Please refer to the following page(s)
Conclusion : Classification: M1

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

Signed for and on behalf of
SGS-CSTC Ltd.

Michelle Xu
Engineer

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Test Information:

Sample description: See photo

I. Test conducted

This test was conducted according to NF P 92-507:2004 Fire safety-building-interior fitting materials - Classification according to their reaction. And the test methods as following:

1. NF P92-501:1995 Safety against fire - Building materials - Reaction to fire tests - Radiation test used for rigid materials, or for materials on rigid substrates (flooring and finishes) of all thicknesses, and for flexible materials thicker than 5 mm
2. NF P 92-504:1995 Safety against fire—Building materials—Reaction to fire tests—Flame persistence test and speed of the spread of flame.
3. NF P 92-505:1995 Safety against fire—Building materials—Reaction to fire tests—Test used for thermalmelting materials—Dripping test.

II. Details of classified product

The details of the tested specimen given below have been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

Thickness (mm)	About 10.0mm
Color	White
Size of Sample	Length 400mm, Wide 300mm

III. Conditioning

Prior to testing, the sample was conditioned,

In an atmosphere having a temperature of 23±2°C and a relative humidity of 50±5% until constant mass is obtained. The mass is considered as constant when two successive weightings 24 hours apart do not differ by more than 0.1% or 0.1 g (take the highest mass value).

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

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IV. Test results

i) NF P92-501:1995 Test by Radiation

Exposed face identification: One face of Specimen

	Specimen 1	Specimen 2	Specimen 3	Specimen 4	AVE
Time of ignited exposed face (ti1) (seconds)	DNI	DNI	DNI	DNI	
Time of ignited unexposed face (ti2) (seconds)	DNI	DNI	DNI	DNI	
Sum of the height of the flame $\sum h$ (cm)	0	0	0	0	
Sum of the duration of flaming combustion, ΔT	0	0	0	0	
$q = \frac{100 \sum h}{t_i \sqrt{\Delta T}}$	0	0	0	0	0
Flaming molten droplets (Yes/No)	No	No	No	No	
Non-flaming molten droplets (Yes/No)	No	No	No	No	

Note:

t_{i1}: Time for the test piece to ignite on exposed face after it has been placed in the cabinet;

t_{i2}: Time for the test piece to ignite on the unexposed face after it has been placed in the cabinet;

t_i: Time for the test piece to ignite after it has been placed in the cabinet;

$\sum h$: Is the sum of the maximum height of the flames (h) reached in every 30 second period (in centimeters) during each test;

ΔT : The total duration of flaming combustion above the top of the radiator (it is calculated whether either one or both faces of the specimen flame);

q: Is the classification index obtained from the data derived from each test.

DNI: Do Not Ignite

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

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ii) NF P 92-504:1995 Flame spread test

	Specimen 1	Specimen 2	Specimen 3	Specimen 4
Flame persistence after withdrawal the burner (Yes/No)	No	No	No	No
Flame persistence time (seconds)	0	0	0	0
Flaming molten droplets (Yes/No)	No	No	No	No
Non-flaming molten droplets (Yes/No)	No	No	No	No
Flame Spread <2 mm/s (Yes/No)	--	--	--	--

iii) NF P 92-505:1995 Dripping test

Exposed face identification: One face of Specimen

Specimen No.	1	2	3	4	5	6	7	8
Flaming molten droplets (Yes/No)	No	No	No	No	No	No	No	No
Non-flaming molten droplets (Yes/No)	No	No	No	No	No	No	No	No
Ignite the wadding (Yes/No)	No	No	No	No	No	No	No	No

Statement:

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 hazard of the product in use.

The test results relate only to the specimens of the product in the form in which were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product, which is supplied or used, is fully represented by the specimens, which were tested.

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

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Annex I, Requirements

Table 2 Resume of classification for the rigid materials and flexible materials which thickness more than 5mm

Radiation Test ^{c)}		Flame Spread		PCS	
Requirement		<2 mm/s	>2 mm/s	<2.5 MJ/kg	>2.5 MJ/kg
No Effective Inflammation	M0			M0 ^{a)}	M1
q<2.5 ^{b)}	M1				
q<15	M2				
q<50	M3				
q ≥50		M4	NC		

^{a)} For the classification M0 of multilayer materials and painted inert materials, refer to clause 3.3.2, 3.3.3, 3.3.4 and appendix C.

^{b)} The meanings of the index q refer to clause 3.2.3.4 of NF P 92-507:2004.

^{c)} If the materials presented a particular behaviour, the classification also needs to refer to Table 3.

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

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Table 3 Resume of classification for the materials presented a particular behaviour

Test Items	Criteria of classification				
		Not ignite the wadding	Not ignite the wadding	Ignite the wadding	Ignite the wadding
Test for hot melt materials					
Flame Persistence Test	No drops	Non-flaming molten droplets	Flaming drops or debris	Non-flaming molten droplets	Flaming drops or debris
Flame persistence time ≤ 2s	M1	M1	M2	M4	M4
Flame persistence time ≤ 5s	M2	M2	M3	M4	M4
Flame persistence time > 5s and Flame Spread < 2 mm/s	M3	M3	M4	M4	M4

Note: 1. The above test was carried out by a SGS laboratory.

2. This test report replaces test report No. GZMR120923380.

Photo:



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

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