

## Test Report

No. AJFS1703000532FF

Date: MAR.31, 2017

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SOYANG TECHNICAL TEXTILE (ZHEJIANG) CO., LTD

NO.36 JINNIU ROAD, JIANSHAN DISTRICT, HAINING CITY, ZHEJIANG PR., CHINA

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

**Sample Description:** BLOCKOUT BANNER

**Style/Item No.:** BLOW-610

**Supplier:** SOYANG TECHNICAL TEXTILE (ZHEJIANG) CO., LTD

**Manufacturer:** SOYANG TECHNICAL TEXTILE (ZHEJIANG) CO., LTD

### **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 : MAR.15, 2017

Test Performing Date : MAR.15, 2017 TO MAR.29, 2017

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 / Color | BLOCKOUT BANNER / White    |
| Density                     | About 600 g/m <sup>2</sup> |
| 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                  | 40        | 40   |
| 3                                       | Time <sup>1)</sup>  | min:s               | 0:15      | 0:18 |
| 4                                       | <u>Melting/burning through</u><br>Time <sup>1)</sup>                | min:s               | 0:12      | 0:11 |
| 5                                       | <u>Back of specimen</u><br>Flaming/glowing, Time <sup>1)</sup>      | min:s               | 0:14      | 0:13 |
| 6                                       | Discolouring, Time <sup>1)</sup>                                    | min:s               | 0:08      | 0:08 |
| 7                                       | <u>Burning droplets</u><br>Begin 1)                                 | min:s               | No        | No   |
| 8                                       | <u>Amount</u><br>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 |         |
| 10                                      | <u>Burning parts</u><br>Begin 1)  | min:s               | No<br>/   | No<br>/ |
| 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      |
| 14                                      | <u>Burner flame impairment by dripping/falling material</u><br>Time <sup>1)</sup> | min:s               | No<br>/   | No<br>/ |
| 15                                      | <u>Premature ending of test</u><br>End of burning at specimen <sup>1)</sup>       | min:s               | /         | /       |
| 16                                      | Time when test terminated (if applicable) <sup>1)</sup>                           | min:s               | /         | /       |
| 17                                      | <u>Burning after end of test</u><br>Duration                                      | min:s               | No<br>/   | No<br>/ |
| 18                                      | Number of specimens   |                     | /         | /       |
| 19                                      | Front of specimen   |                     | /         | /       |
| 20                                      | Back of specimen  |                     | /         | /       |
| 21                                      | Height of flame   | cm                  | /         | /       |
| 22                                      | <u>Glowing after end of test</u><br>Duration                                      | min:s               | No<br>/   | No<br>/ |
| 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 |       |  |  |  |  |
| 28                                      | Single results                | cm    |                     |    |           |       |  |  |  |  |
|   |                               |       | 60                  | 61 | 58        | 60    |  |  |  |  |
|   |                               |       | 62                  | 60 | 62        | 60    |  |  |  |  |
| 29                                      | Average of the single results | cm    | 60.8                |    |           | 60.0  |  |  |  |  |
| 30                                      | <u>Smoke temperature</u>      | °C    | /                   |    |           | /     |  |  |  |  |
| 31                                      | Max. of average               | °C    | 142.8               |    |           | 141.9 |  |  |  |  |
|   | Time <sup>1)</sup>            | min:s | 07:11               |    |           | 06:58 |  |  |  |  |

Note: <sup>1)</sup> 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

Flame application: 15s

[  ] bottom edge ignition

| 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)  | 7          | 6   | 6   | 6   | 7   | 6         | 8   | 6   | 6   | 8   |
| 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 ignitability 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.

To be continued...



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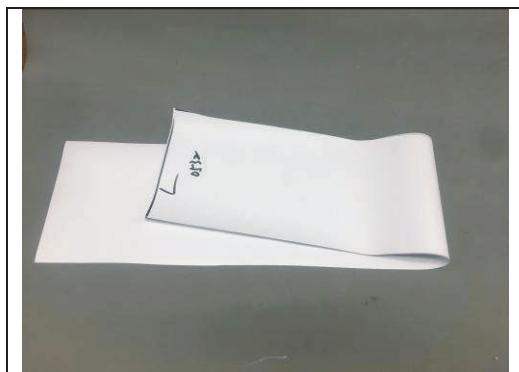
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