

## TEST REPORT

No. : SHIN1602008087PS

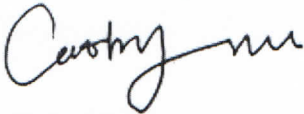
Date : Mar 15, 2016

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

Sample Name : reprocessed sponge underlay  
Date of Receipt : Feb 29, 2016  
Testing Start Date : Feb 29, 2016  
Testing End Date : Mar 15, 2016  
Test result(s) : For further details, please refer to the following page(s)

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



Cathy Wu  
Authorized signatory



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Test Item:

EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements  
—Part 1: Classification using data from reaction to fire tests, Class B<sub>fl</sub>

### I. Test conducted

This test was conducted as per EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests. And the test methods as following:

1. EN ISO 9239-1:2010 Reaction to fire tests for floorings —Part 1: Determination of the burning behaviour using a radiant heat source.
2. EN ISO 11925-2:2010 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

### II. Details of classified product

Color	Green and Grey
Thickness	16mm
Mass per unit area	About 1.65kg/m <sup>2</sup>

#### Mounting and fixing:

Fire cement board, with its density approximate 1800kg/m<sup>3</sup>, thickness approximate 8mm, is as the substrate. The test specimens are fixed mechanically to the substrate. No joint.

### III. Test results

Test method	Parameter	Number of tests	Results
EN ISO 9239-1	Critical flux (kW/m <sup>2</sup> )	3	>11
	Smoke (%×minutes)		50.1
EN ISO 11925-2 Exposure = 15 s	$F_s \leq 150$ mm	6	YES



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### IV. Classification and direct field of application

This classification has been carried out in accordance with **EN 13501-1:2007+A1:2009**.

#### a) Classification

The product, REPROCESSED SPONGE UNDERLAY, classification is as following,

Fire behaviour		Smoke production	
B <sub>fl</sub>	—	s	1

**Reaction to fire classification: B<sub>fl</sub>—S1**

**Remark:** The classes with their corresponding fire performance are given in annex A.

#### b) Field of application

This classification for the submitted sample is valid for the following end use condition:

- With all substrates classified A1 and A2
- With mechanically fixing
- No joint

This classification is valid for the following product parameters:

- Characteristics as described in § II of this test report.

**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.

#### Warning:

This classification report does not represent type approval or certification of the product.

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer's factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.



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### Annex A

Classes of reaction to fire performance for floorings

class	Test methods	Classification	Additional classification
A <sub>1fl</sub>	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$\text{PCS} \leq 2.0\text{MJ/kg}$ <sup>a</sup> and $\text{PCS} \leq 2.0\text{MJ/kg}$ <sup>b</sup> and $\text{PCS} \leq 1.4\text{MJ/m}^2$ <sup>c</sup> and $\text{PCS} \leq 2.0\text{MJ/kg}$ <sup>d</sup>	-
A <sub>2fl</sub>	EN ISO 1182 <sup>a</sup> or	$\Delta T \leq 50^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f \leq 20\text{s}$	-
	and EN ISO 1716	$\text{PCS} \leq 3.0\text{MJ/kg}$ <sup>a</sup> and $\text{PCS} \leq 4.0\text{MJ/m}^2$ <sup>b</sup> and $\text{PCS} \leq 4.0\text{MJ/m}^2$ <sup>c</sup> and $\text{PCS} \leq 3.0\text{MJ/kg}$ <sup>d</sup>	-
	EN ISO 9239-1 <sup>e</sup>	Critical flux <sup>f</sup> $\geq 8.0\text{kW/m}^2$	Smoke productio <sup>g</sup>
B <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux <sup>f</sup> $\geq 8.0\text{kW/m}^2$	Smoke productio <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	-
C <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux <sup>f</sup> $\geq 4.5\text{kW/m}^2$	Smoke productio <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	-
D <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux <sup>f</sup> $\geq 3.0\text{kW/m}^2$	Smoke productio <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	-



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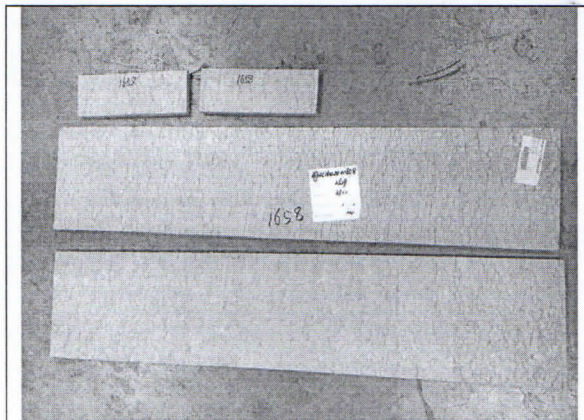
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class	Test methods	Classification	Additional classification
E <sub>fl</sub>	EN ISO 11925-2 h Exposure =15s	Fs≤150mm within 20 s	-
F <sub>fl</sub>	No performance determined		

- <sup>a</sup> For homogeneous products and substantial components of non-homogeneous products.
- <sup>b</sup> For any external non-substantial component of non-homogeneous products.
- <sup>c</sup> For any internal non-substantial component of non-homogeneous products.
- <sup>d</sup> For the product as a whole.
- <sup>e</sup> Test duration = 30 min.
- <sup>f</sup> Critical flux is defined as the radiant flux at which the flame extinguishes or the radiant flux after a test period of 30 min, whichever is the lower (i.e. the flux corresponding with the furthest extent of spread of flame).
- <sup>g</sup> **s1** = Smoke ≤ 750 % minutes;  
**s2** = not s1.
- <sup>h</sup> Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack.

Test Photo:



- The test was performed by SGS other internal laboratory.

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



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