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Sample Description : ARTIFICIAL GRASS

The above data and information was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion. results apply to the sample as received.

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SGS Ref No. : GZHL2001000254OT  
 Sample Receiving Date : Jan.03, 2020  
 Test Performing Date : Jan.03, 2020 to Jan.15, 2020

**Test Result Summary**

Test(s) Requested	Result(s)
EN 13501-1:2018 Fire classification of construction products and building elements-Part 1: Classification using data from reaction to fire tests	Classification: C <sub>fl</sub> -s1

**Summary:**

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

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



Daniel Guan  
 Approved signatory



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**SDFTS 001172**

TESTS AND RESULTS

**Test Conducted:**

This test is conducted as per EN 13501-1:2018 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+AC:2011 Reaction to fire tests-Ignitability of building products subjected to direct impingement of flame-Part 2: Single-flame source test.

**Mounting and fixing (For EN ISO 9239-1:2010):**

Fibre cement board, with its density about 1800kg/m<sup>3</sup>, thickness about 8mm, is as the substrate. The specimens were fixed mechanically to the substrate.

**Test Results:**

Test method	Parameter	Number of tests	Results
EN ISO 9239-1:2010	The mean value for the critical heat flux (CHF) from the same orientation	3	6.8 kW/m <sup>2</sup>
	Smoking measurement Integrated smoke value		334.7 %×min
	Comments and Observation		Melting
EN ISO 11925-2:2010+AC:2011 Exposure = 15 s	F <sub>s</sub> ≤ 150 mm within 20 s	6	Yes

Remark:

- 1). Above value is the mean value for the critical flux (CHF and/or HF-30) from the three same orientation specimens.

**Classification and direct field of application**

This classification has been carried out in accordance with EN 13501-1:2018

**Classification:**

Fire behaviour	Smoke production
C <sub>fl</sub>	s 1

Remark:

The classes with their corresponding fire performance are given in Table 2.

Reaction to fire classification is based on the 7-step scale of A<sub>1fl</sub> to F<sub>fl</sub>, where A<sub>1fl</sub> is good and F<sub>fl</sub> is bad.

**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.

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**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.

Table 2-Classes of reaction to fire performance for floorings

Class	Test method(s)	Classification criteria	Additional classification
A1 <sub>fl</sub>	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30 \text{ }^\circ\text{C}$ ; and $\Delta m \leq 50 \%$ ; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2,0 \text{ MJ/kg}^a$ and $PCS \leq 2,0 \text{ MJ/kg}^b$ and $PCS \leq 1,4 \text{ MJ/m}^2^c$ and $PCS \leq 2,0 \text{ MJ/kg}^d$	-
A2 <sub>fl</sub>	EN ISO 1182 <sup>a</sup> or	$\Delta T \leq 50 \text{ }^\circ\text{C}$ and $\Delta m \leq 50 \%$ and $t_f \leq 20 \text{ s}$	-
	EN ISO 1716 and	$PCS \leq 3,0 \text{ MJ/kg}^a$ and $PCS \leq 4,0 \text{ MJ/m}^2^b$ and $PCS \leq 4,0 \text{ MJ/m}^2^c$ and $PCS \leq 3,0 \text{ MJ/kg}^d$	-
	EN ISO 9239-1 <sup>e</sup>	Critical flux $f \geq 8,0 \text{ kW/m}^2$	Smoke production <sup>g</sup>
B <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux $f \geq 8,0 \text{ kW/m}^2$	Smoke production <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
C <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux $f \geq 4,5 \text{ kW/m}^2$	Smoke production <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
D <sub>fl</sub>	EN ISO 9239-1 <sup>e</sup> and	Critical flux $f \geq 3,0 \text{ kW/m}^2$	Smoke production <sup>g</sup>
	EN ISO 11925-2 <sup>h</sup> : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
E <sub>fl</sub>	EN ISO 11925-2 <sup>h</sup> : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
F <sub>fl</sub>	EN ISO 11925-2 <sup>h</sup> : Exposure = 15 s	$F_s > 150 \text{ mm}$ within 20 s	-

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**SDFS 001174**

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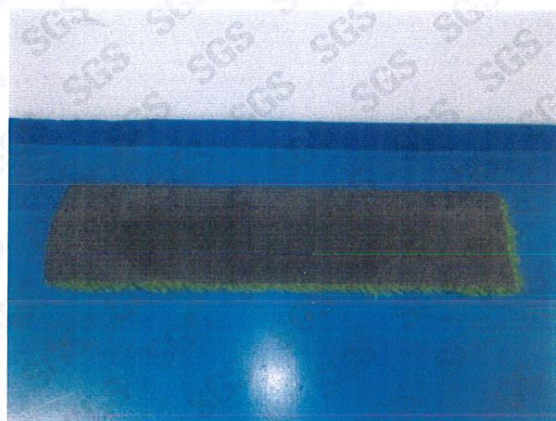
- <sup>a</sup> For homogeneous products and substantial components of non-homogeneous products.
- <sup>b</sup> For any external non-substantial component of non-homogeneous products.
- <sup>c</sup> For any internal non-substantial component of non-homogeneous products.
- <sup>d</sup> For the product 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

**SAMPLE INFORMATION AND PICTURES**

Thickness: About 18mm  
Mass per unit area: About 2.42kg/m<sup>2</sup>



Sample face



Sample back

\*\*\*End of Report\*\*\*



SGS-CSTC Standards Technical Services Co., Ltd.  
Shunde Branch Technical Services Co., Ltd.

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