

## TEST REPORT

No. : XMIN2007006117CM

Date : Aug 03, 2020

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scan to see the report



XMIN2007006117CM

CUSTOMER NAME: SOUNDHUSH LTD  
 ADDRESS: ATLANTIC HOUSE GOMM ROAD, HIGH WYCOMBE, BUCKS  
 HP137DJ, UK

Sample Name : SHUSH CORE PANELS  
 Product Specification : 1200\*/ 2400\*40mm  
 Manufacturer : Soundhush Ltd  
 Buyer : Soundhush Ltd  
 Material and Mark : Shush Core Panels

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

\*\*\*\*\*

SGS Ref. No. : SDFS2007004263FF  
 Date of Receipt : Jul 09, 2020  
 Testing Start Date : Jul 09, 2020  
 Testing End Date : Jul 30, 2020  
 Test result(s) : For further details, please refer to the following page(s)  
 (Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for  
 SGS-CSTC Standards Technical  
 Services Co., Ltd Xiamen Branch  
 Testing Center

Bryan Hong  
 Authorized signatory



SGS-CSTC Standards Technical Services Co., Ltd.  
 Xiamen South Toluene Commercial Construction Material Laboratory

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## 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: A2-s1, d0

### Summary:

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



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### 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 1716:2010 Reaction to fire tests for products -Determination of the gross heat of combustion. (Calorific Value)
2. EN 13823:2010+A1:2014 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.

#### Mounting and fixing (For EN 13823:2010+A1:2014):

The specimen was tested free standing at a distance of at least 80 mm from the backing board. Both wings were clamped at the top and the bottom.

#### Test Results:

Test method	Parameter	Number of tests	Results
EN ISO 1716:2010	The product as a whole <sup>e</sup> -PCS (MJ/kg)	3	2.0
	Fiberglass mat <sup>a</sup> -PCS (MJ/kg)		0.9
	Glue <sup>d</sup> -PCS (MJ/m <sup>2</sup> )		0.07
	Fiberglass <sup>a</sup> -PCS (MJ/kg)		2.1
	Acrylic paint <sup>b</sup> -PCS (MJ/m <sup>2</sup> )		0.04
EN 13823:2010+A1:2014	FIGRA <sub>0.2MJ</sub> (W/s)	3	101.6
	FIGRA <sub>0.4MJ</sub> (W/s)		83.5
	THR <sub>600s</sub> (MJ)		2.4
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		9.7
	TSP <sub>600s</sub> (m <sup>2</sup> )		27.9
	LFS < edge of specimen		Yes
	Flaming particles or droplets within 600s (Yes/No); Combustion time, if any burning time: (≤10s / >10s)		No



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**Remark:**

FIGRA-Fire growth rate index used for classification purposes [W/s]  
 For the classes A2 and B, FIGRA<sub>0.2MJ</sub>  
 For the classes C and D, FIGRA<sub>0.4MJ</sub>  
 LFS -Lateral flame spread [m]  
 THR<sub>600s</sub>-Total heat release within 600 s [MJ]  
 SMOGRA -Smoke growth rate [m<sup>2</sup>/s<sup>2</sup>]  
 TSP<sub>600s</sub> -Total smoke production within 600 s [m<sup>2</sup>]  
 PCS -gross heat of combustion [MJ/kg or MJ/m<sup>2</sup>]

**Classification and direct field of application:**

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

**Classification:**

Fire behaviour		Smoke production			Flaming droplets	
A2	—	s	1	,	d	0

Note: This report confirms that the material has been tested to A2-s1, d0 and has passed.

**Remark:**

The classes with their corresponding fire performance are given in Table 1.  
 Reaction to fire classification is based on the 7-step scale of A1 to F, where A1 is good and F 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.

**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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Table 1 – Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products.

Class	Test method(s)	Classification criteria	Additional classification
A1	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	$PCS \leq 2.0\text{MJ/kg}$ <sup>a</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>b c</sup> and $PCS \leq 1.4\text{MJ/m}^2$ <sup>d</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>e</sup>	-
A2	EN ISO 1182 <sup>a</sup> or	and $\Delta T \leq 50^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f \leq 20\text{ s}$	-
	EN ISO 1716		-
	EN 13823	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
B	EN 13823 and	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>l</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
C	EN 13823 and	$FIGRA \leq 250\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>l</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	



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Class	Test method(s)	Classification criteria	Additional classification
D	EN 13823 and	FIGRA $\leq$ 750W/s	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure=30s	Fs $\leq$ 150mm within 60 s	
E	EN ISO 11925-2 <sup>i</sup> Exposure =15s	Fs $\leq$ 150mm within 20 s	flaming droplets/particles <sup>h</sup>
F	EN ISO 11925-2 <sup>i</sup> Exposure =15s	Fs $>$ 150mm within 20 s	-

<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> Alternatively, any external non-substantial component having a PCS  $\leq$  2,0 MJ/m<sup>2</sup>, provided that the product satisfies the following criteria of EN 13823: FIGRA  $\leq$  20 W/s, and LFS < edge of specimen, and THR<sub>600s</sub>  $\leq$  4,0 MJ, and s1, and d0.

<sup>d</sup> For any internal non-substantial component of non-homogeneous products.

<sup>e</sup> For the product as a whole.

<sup>f</sup> In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.

s1 = SMOGRA  $\leq$  30m<sup>2</sup>/s<sup>2</sup> and TSP<sub>600s</sub>  $\leq$  50m<sup>2</sup>; s2 = SMOGRA  $\leq$  180m<sup>2</sup>/s<sup>2</sup> and TSP<sub>600s</sub>  $\leq$  200m<sup>2</sup>;  
s3 = not s1 or s2

<sup>g</sup> d0 = No flaming droplets/ particles in EN 13823 within 600 s;

d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;

d2 = not d0 or d1.

Ignition of the paper in EN ISO 11925-2 results in a d2 classification.

<sup>h</sup> Pass = no ignition of the paper (no classification);

Fail = ignition of the paper (d2 classification).

<sup>i</sup> Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.



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### SAMPLE INFORMATION AND PICTURES

Density of the test specimen for EN 13823:2010+A1:201	About 7.93 kg/m <sup>2</sup>
4:	
Thickness of the test specimen for EN 13823:2010+A1:2	About 40 mm
014:	
★Density of the acrylic paint:	0.1 kg/m <sup>2</sup>
★Density of the fiberglass:	4.5 kg/m <sup>2</sup>
★Density of the glue:	0.02 kg/m <sup>2</sup>
★Density of the fiberglass mat:	0.28 kg/m <sup>2</sup>

The above data and information with ★ 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.



Before test(for EN 13823)



After test(for EN 13823)



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