



FIRE CLASSIFICATION TEST REPORT

EN 13501-1:2007 +A1:2010

For

Wooden Acoustic Panel

Model Name:

2440*128*15mm

Brand Name: REMAK

Report No.: ENC110509GZ73E1

Date of Issue: May 12, 2011

Prepared For

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GENERAL INFORMATION:

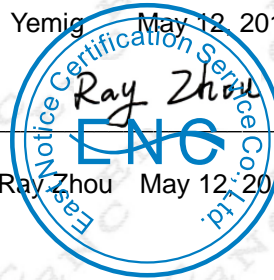
Product Description:	Wooden Acoustic Panel
Model Number:	2440*128*15mm
Model Difference:	All models use the same materials
Branch name:	REMAK
Applicant:	Detech Real Estate and Trading Joint stock Company Head Office: P301 Detech Building, 15B Pham Hung, Tu Liem, HN, VN Branch Office: P706 B2 Block, Ham Nghi, My Dinh 1, Tu Liem, HN, VN
Manufacturer:	Remak Co.,Ltd Room A68, Building 04, Area A, Junjing Garden, Shishan Town, Nanhai District, Foshan City, Guangdong Province
Report No.:	ENC110509GZ73E1
Test Requested:	EN 13501-1:2007+A1:2010 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests, Class B
Test Results:	See attached sheet
Sample Receiving Date:	May 9, 2011
Test Performing Date:	May 9, 2011 –May 12, 2011

Checked By Yemig

Yemig May 12, 2011

Authorized By Ray Zhou

Ray Zhou May 12, 2011



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I. Test conducted

This test is conducted as per EN 13501-1:2007+A1:2010 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 13823:2002 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2002 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

a) Nature and end use application

The product “Wooden Acoustic Panel” is defined as a decorative sheet. Its classification is valid for the following end use application:

“Sound absorption adornment materials”

b) Description

The product “Wooden Acoustic Panel” is consists of Red fireproof board. 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.

General description	Wooden Acoustic Panel
Trade name / product reference	REMAK
Name of manufacturer	Remak Co., Ltd
Color	Red
Thickness	15mm
Bulk Density / Mass per unit area	9.0kg/m ²
Flame retardant details	Wooden Acoustic Panel is made from Red fireproof board
End use	Sound absorption adornment materials

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III. Test results

Test method	Parameter	Number of tests	Results
EN 13823	FIGRA (W/s)	3	15.8
	LFS < edge of specimen		Yes
	THR _{600s} (MJ)		1.6
	SMOGRA (m ² /s ²)		8.2
	TSP _{600s} (m ²)		10.5
	Flaming particles or droplets		No

Test method	Parameter	Number of tests	Results
EN ISO 11925-2 Exposure = 30 s	FIGRA (W/s)	3	Yes
	LFS < edge of specimen		No

IV. Classification and direct field of application

This classification has been carried out in accordance with EN 13501-1:2007+A1:2010.

a) Classification

The product, "Wooden Acoustic Panel", classification is as following:

Fire behaviour	Smoke production		Flaming droplets	
B	S	1	d	0

CLASSIFICATION: B; S1; d0

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 mechanical fixing
- No joint
- No an airgap

This classification is valid for the following product parameters:

- Characteristics are described in § II b of this test report

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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.

Annex A

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 ^a 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	$PCS \leq 2.0\text{MJ/kg}$ ^a and $PCS \leq 2.0\text{MJ/kg}$ ^{b,c} and $PCS \leq 1.4\text{MJ/m}^2$ ^d and $PCS \leq 2.0\text{MJ/kg}$ ^e	--
A2	EN ISO 1182 ^a or	$\Delta T \leq 50^\circ\text{C}$, 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 $PCS \leq 4.0\text{MJ/m}^2$ ^d and $PCS \leq 3.0\text{MJ/kg}$ ^e	--
	EN 13823	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR600s \leq 7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
B	EN 13823 and	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR600sB \leq 7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure = 30s	60s $F_s \leq 150\text{mm}$	
C	EN 13823 and	$FIGRA \leq 250\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR600sC \leq 15\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	

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D	EN 13823 and	FIGRA \leq 750W/s	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ⁱ Exposure=30s	F _s \leq 150mm within 60 s	
E	EN ISO 11925-2 ⁱ Exposure =15s	F _s \leq 150mm within 20 s	flaming droplets/particles ^h
F	No performance determined		

^a For homogeneous products and substantial components of non-homogeneous products.

^b For any external non-substantial component of non-homogeneous products.

^c Alternatively, any external non-substantial component having a PCS \leq 2,0 MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA \leq 20 W/s, and LFS < edge of specimen, and THR_{600s} \leq 4,0 MJ, and s1, and d0.

^d For any internal non-substantial component of non-homogeneous products.

^e For the product as a whole.

^f 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 30m²/s² and TSP_{600s} \leq 50m²; s2 = SMOGRA \leq 180m²/s² and TSP_{600s} \leq 200m²; s3 = not s1 or s2

^g 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.

^h Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).

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

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Photo Appendix



---- END OF REPORT ----

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