TEST REPORT

APPLICANT	:	Biohouse (Shanghai) Co.,Ltd
ADDRESS	:	16H, Building No.2, #515 Yishan Rd., Shanghai, 200235
SAMPLE DESCRPTION	:	Solid oak floor coated with biohouse Natural Oil 9430
SAMPLE RECEIVED DATE	:	10-Apr-2012
TURN AROUND TIME	:	10-Apr-2012 To 09-May-2012
TEST REQUESTED	:	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 C $_{fl}$
TEST RESULT	:	Please refer to next page(s)

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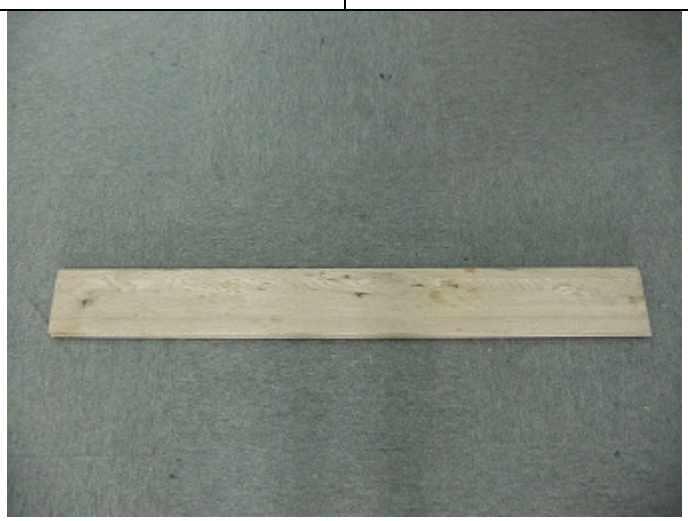
********** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) **********

Signed for and on behalf of
Eurofins Product Testing Service (Shanghai) Co., Ltd

Terric Ji
Lab Manager

SAMPLE PHOTO(S)



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TO BE CONTINUED

TEST RESULT

I. Test conducted

This test is 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

a) Description

Color	Light Yellow
Thickness	About 18mm
Mass per unit area	About 12.6kg/m^2

Mounting and fixing:

Fire cement board, with its density approximate 1800kg/m^3, thickness 6mm, is as the substrate. The test specimens are fixed mechanically to the substrate with no cavity behind it, The test specimen were prepared to incorporate a centre-longitudinal joint.

III. Test results

Test method	Parameter	Number of tests	Results
EN ISO 9239-1	Critical flux (kW/m^2)	3	7.2
	Smoke (%×minutes)		114
EN ISO 11925-2 Exposure = 15 s	*F*s ≤ 150 mm	3	YES

TO BE CONTINUED

TEST RESULT

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, REAL WOOD FLOOR, classification is as following,

Fire behaviour		Smoke production	
C_{fl}	–	s	1

Reaction to fire classification: C_{fl} – 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 mechanical fixing

--- Have joint

--- No an air gap

This classification is valid for the following product parameters:

---Characteristics as described in § II b 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.

TO BE CONTINUED

TEST RESULT

Annex A
Classes of reaction to fire performance for floorings

class	Test methods		Classification	Additional classification
$A1_{fl}$	EN ISO 1182 [a] and		△*T*≤30℃, and △*m*≤50%, and t_f=0(i.e. no sustained flaming)	-
	EN ISO 1716		PCS≤2.0MJ/kg [a] and PCS≤2.0MJ/kg [b] and PCS≤1.4MJ/m^2 [c] and PCS≤2.0MJ/kg [d]	-
$A2_{fl}$	EN ISO 1182 [a] or	and	△T≤50℃, and △m≤50%, and t_f≤20s	-
	EN ISO 1716		PCS≤3.0MJ/kg [a] and PCS≤4.0MJ/m^2 [b] and PCS≤4.0MJ/m^2 [c] and PCS≤3.0MJ/kg [d]	-
	EN ISO 9239-1 [e]		Critical flux [f] ≥8.0kW/ m^2	Smoke productio [g]
B_{fl}	EN ISO 9239-1 [e] and		Critical flux [f] ≥8.0kW/ m^2	Smoke productio [g]
	EN ISO 11925-2 [h] Exposure =15s		Fs≤150mm within 20 s	-
C_{fl}	EN ISO 9239-1 [e] and		Critical flux [f] ≥4.5kW/ m^2	Smoke productio [g]
	EN ISO 11925-2 [h] Exposure =15s		Fs≤150mm within 20 s	-
D_{fl}	EN ISO 9239-1 e and		Critical flux f ≥3.0kW/ m^2	Smoke productio g
	EN ISO 11925-2 h Exposure =15s		Fs≤150mm within 20 s	-
E_{fl}	EN ISO 11925-2 h Exposure =15s		Fs≤150mm within 20 s	-
F_{fl}	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] For any internal non-substantial component of non-homogeneous products.
[d] For the product as a whole.
[e] Test duration = 30 min.
[f] 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).
[g] **s1** = Smoke ≤ 750 % minutes;
s2 = not s1.
[h] Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack.

*** END OF THE REPORT ***