

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2013-Efectis-R0227c[Rev.2]
Sponsor	MOSO International BV Adam Smithweg 2 1689 ZW ZWAAG THE NETHERLANDS
Product name	MOSO® Bamboo X-treme
Prepared by	Efectis Nederland BV
Notified body no.	1234
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1. INTRODUCTION

1.1 PRODUCT NAME

This classification report defines the classification assigned to **MOSO® Bamboo X-treme**, in accordance with the procedures given in EN 13501-1:2018.

1.2 REVISION INFORMATION

Revision 1:

Product name changed and removed the sub sponsor.

Revision 2:

Extra test results added of the same product with vertical orientation

Original date of issue: May 2013

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **MOSO® Bamboo X-treme**, is defined as indoor/outdoor wall/ceiling covering.

2.2 MANUFACTURER

MOSO International BV
Adam Smithweg 2
1689 ZW ZWAAG

2.1 THE NETHERLANDS PRODUCT DESCRIPTION

According to the sponsor the product is from inside out composed of:

- Moso® Bamboo X-treme with a thickness of 18 mm, a board width of approx. 137 mm and a density of approx. 1150 kg/m³. Moso® Bamboo X-treme can be oriented horizontal and vertical and applied without a gap between the boards.
- The product is mounted against pine battens, thickness 40 mm with a density of at least 450 kg/m³.

The product has a total thickness of 18 mm and a density of approx. 1150 kg/m³.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2010 + C1:2011	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
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
EN 13501-1:2018	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	MOSO International BV THE NETHERLANDS	2013-Efectis-R0227a [Rev.1] 2013-Efectis-R0227b [Rev.2]	EN ISO 11925-2:2010 + C1:2011 EN 13823:2010 + A1:2014

3.3 TEST RESULTS

Table 1: Test results ignitibility tests Bamboo boards

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2				
surface flame impingement	Fs ≤150 mm	6	38	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	30	-
	Ignition of filter paper		-	Compliant

Table 2: Test results SBI test horizontal orientated Bamboo boards

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
18 mm horizontal orientation	FIGRA _{0,2MJ} [W/s]	3	109	-
	FIGRA _{0,4MJ} [W/s]		109	-
	THR _{600s} [MJ]		7.1	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		0.5	-
	TSP _{600s} [m ²]		26	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

Table 3: Test results SBI tests vertical orientated Bamboo boards

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
18 mm vertical orientation	FIGRA _{0.2MJ} [W/s]	1	94	-
	FIGRA _{0.4MJ} [W/s]		94	-
	THR _{600s} [MJ]		7.3	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		0.0	-
	TSP _{600s} [m ²]		24	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class Test method(s)	B	C	D
EN ISO 11925-2 Exposure = 30 s	F _s ≤ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	FIGRA _{0.2 MJ} ≤ 120 W/s LFS < edge of specimen THR _{600s} ≤ 7.5 MJ	FIGRA _{0.4 MJ} ≤ 250 W/s LFS < edge of specimen THR _{600s} ≤ 15 MJ	FIGRA _{0.4 MJ} ≤ 750 W/s
Additional classification			
Smoke production	s1 = SMOGRA ≤ 30 m ² /s ² and TSP _{600s} ≤ 50 m ² ; s2 = SMOGRA ≤ 180 m ² /s ² and TSP _{600s} ≤ 200 m ² ; s3 = not s1 or s2		
Flaming Droplets/particles	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.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018.

4.2 CLASSIFICATION

The product, **MOSO® Bamboo X-treme**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B – s1, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	18 mm
Surface density	Approx. 21 kg/m ²
Density	1150 kg/m ³

This classification is valid for the following end use applications:

Substrate	Not applicable
Application	Horizontal and vertical orientation
Air gap	Yes, with pine battens
Methods and means of fixing	Mechanically
Joints	Horizontal and vertical
Other aspects of end use conditions	Closed surface, no openings or gaps between components (boards)

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

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



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