



Laboratory for Fire Safety

*Classification of reaction to fire performance in
accordance with EN 13501-1:2007+A1:2009 of NPSP
Nabasco 8010 Nature Based Composite board*

Classification report

Laboratory for Fire Safety

Classification of reaction to fire performance in accordance with EN 13501-1:2007+A1:2009 of NPSP Nabasco 8010 Nature Based Composite board

Classification report,

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Product name NPSP Nabasco 8010

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1 Introduction

On behalf of NPSP BV an investigation was performed with respect to the reaction to fire properties of NPSP Nabasco 8010 Nature Based Composite board.

This classification report defines the reaction to fire classification of the product in accordance with the procedures described in EN 13501-1: 2007 + A1: 2009.



For this type of measurements the Laboratory for Fire safety has been accredited by the Dutch "Raad voor Accreditatie" (RvA).

The RvA is member of EA MLA (**EA MLA: European Accreditation Organisation MultiLateral Agreement**: <http://www.european-accreditation.org>).

EA: "Certificates and reports issued by bodies accredited by MLA and MRA members are considered to have the same degree of credibility, and are accepted in MLA and MRA countries."

2 Product description

The product investigated is NPSP Nabasco 8010, a Nature Based Composite board made from natural raw materials. The product is intended to be used as wall and ceiling finish for external applications.

According to the sponsor there was no harmonised European product standard published for this type of product at the time the reaction to fire reports for the tested product were drafted.

t2.1 According to the information provided by the sponsor, the product is composed of:

Product	NPSP Nabasco 8010	
General	Description:	Bio composite BMC (Bulk Moulding Compound)
	Composition:	Natural-fiber (flax) reinforced thermoset unsaturated polyester material with mineral fillers (lime) and additives.
	Thickness of board:	6 to 25 mm (board)
	Colour:	Natural
	Surface:	Glossy
Frame	Description:	Wood-based frame made from non-fire-treated timber.

3 Test reports and test results in support of the classification

3.1 Test reports

The following test reports were used:

Name of the laboratory	Name of client	Number and date of the test report	Test method
Peutz bv	NPSP B.V.	Y 2002-3E-RA-001, 20 November 2018	EN 13823:2010
Peutz bv	NPSP B.V.	Y 2002-4E-RA-001, 20 November 2018	EN-ISO 11925-2:2010

3.2 Test results

The test results are summarised as follows:

Test method	Parameter	Number of tests	Results		Criteria for class B	
			Continuous parameters average	Compliance parameters	Continuous parameters	Compliance parameters
EN-ISO 11925-2 (6 mm, 26th September 2018) flame application time 30 s						
– Surface exposure	$F_s \leq 150$ mm	6	max. 13 mm	-	≤ 150 mm	-
	Ignition filter paper		-	N	-	N
– Edge exposure	$F_s \leq 150$ mm	6	max. 18 mm	-	≤ 150 mm	-
	Ignition filter paper		-	N	-	N
EN-ISO 11925-2 (25 mm, 26th September 2018) flame application time 30 s						
– Surface exposure	$F_s \leq 150$ mm	6	max. 12 cm	-	≤ 150 mm	-
	Ignition filter paper		-	N	-	N
– Edge exposure	$F_s \leq 150$ mm	6	max. 14 cm	-	≤ 150 mm	-
	Ignition filter paper		-	N	-	N

Test method	Parameter	Number of tests	Results		Criteria for class B-s1,d0	
			Continuous parameters average	Compliance parameters	Continuous parameters	Compliance parameters
EN 13823 (6 mm, 25th September 2018)						
	THR _{600s} [MJ]	3	3.2	-	≤ 7.5	-
	FIGRA _{0,2MJ} [W/s]		22	-	≤ 120	-
	FIGRA _{0,4MJ} [W/s]		22	-		
	TSP _{600s} [m ²]		34	-	≤ 50	-
	SMOGRAs [m ² /s ²]		4	-	≤ 30	-
	LFS < edge		-	Y	-	Y
	Droplets/particles – FDP ≤ 10 s – FDP > 10 s		-	N N	-	N N

EN 13823 (25 mm, 25th September 2018)						
	THR _{600s} [MJ]	1	0.9	-	≤ 7.5	-
	FIGRA _{0,2MJ} [W/s]		6.9	-	≤ 120	-
	FIGRA _{0,4MJ} [W/s]		6.9	-		
	TSP _{600s} [m ²]		9.5	-	≤ 50	-
	SMOGRAs [m ² /s ²]		0.0	-	≤ 30	-
	LFS < edge		-	Y	-	Y
	Droplets/particles – FDP ≤ 10 s – FDP > 10 s		-	N N	-	N N

4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-1:2007+A1:2009.

4.2 Classification

The product, NPSP Nabasco 8010, has been classified to its reaction to fire behaviour as:

B

The additional classification for the smoke production is:

s1

The additional classification for flaming droplets is:

d0

**Reaction to fire classification:
B-s1, d0**

4.3 Field of application

This classification is valid for the following end use parameters:

- Fixing: Mounted with a distance between two consecutive fixings of 600 mm or less
- Air gap: Valid with ventilated air gap of 30 mm
- Spacers: Valid for mounting on spruce spacers (studs) or spacers with equal or higher reaction to fire class
- Substrate: Substrate with Euroclass A2-s1,d0 or better with a nominal thickness of at least 12 mm
- Other: Use as wall finish for internal and external applications according to the manufacturer's specifications

This classification is valid for the following product parameters:

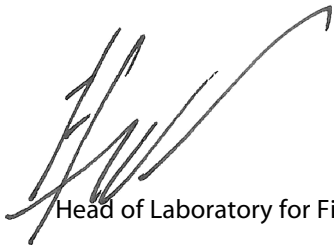
- Product thickness: 6 to 25 mm
- Density: 1861 – 1885 kg/m³
- Product composition: No variation allowed
- Colour: Natural colour

5 Limitations

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

Mook,

J.J. Mertens, MSc.



Head of Laboratory for Fire Safety

D.J. Den Boer B.Eng.



Management

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