

CLASSIFICATION REPORT

REACTION TO FIRE

according to PN-EN 13501-1+A1:2010

Contract №: 2185/15/Z00NP

Customer:	ELEKTRO-CHEM Henryk Szawelski ul. Dworcowa 71 62-041 Puszczykowo
Prepared by:	Fire Research Department Building Research Institute 1 Filtrowa Str. 00-611 Warszawa
Product name:	<i>Hardwood plywood flame-retardant treated by FIREFREE88® paint</i>
Classification report №:	2185/15/Z00NPE (English version of 1024/14/Z00NP)
Issue nr: 1	Copy № 1
Date of issue:	2015-09-02

This classification report consists of three pages and may only be used or reproduced in its entirety.

1. Introduction

This classification report defines the classification assigned to **hardwood plywood flame-retardant treated by FIREFREE88® paint** in accordance with procedures given in PN-EN 13501-1+A1:2010.

2. Details of classified product

2.1. General

The producer declares that the plywood is waterproofing and dry-lasted. Flame-retarded plywood is used as the walls, ceilings/roofs, floors finishing, steps elements in load bearing and non-load bearing building constructions, in frame construction elements.

2.2 Product description

The product is described below.

Hardwood plywood with the thickness of 9 ± 1 mm flame-retardant treated by FIREFREE88® paint. The producer of plywood is Sklejka-Eko S.A. company. The paint was applied on the plywood surface in 8 layers to achieve a thickness of 2,2 – 2,3 mm.

Producer declared that FIREFREE88® paint is the intumescent paint used for the flame-retardant treating of wood.

3. Test reports and test results as a basis of the classification

3.1. Test reports

Laboratory	Customer	Test report nr	Test method
Fire Research Laboratory ITB	ELEKTRO-CHEM Henryk Szawelski	LPP01-1024/14/Z00NP	PN-EN 13823:2010
		LPP02-1024/14/Z00NP	PN-EN ISO 11925-2:2010

3.2. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter – mean (m)	Compliance with the parameter
PN-EN ISO 11925-2:2010 surface and edge 30 s exposure	Flame spread $F_s \leq 150$ mm	6	(-)	Y
	Flaming droplets/debris		(-)	N
PN-EN 13823:2010	FIGRA _{0,2MJ} [W/s]	3	87,2	(-)
	FIGRA _{0,4MJ} [W/s]		35,0	(-)
	LFS < edge		(-)	Y
	THR _{600s} [MJ]		1,5	(-)
	SMOGRA [m ² /s ²]		24,1	(-)
	TSP _{600s} [m ²]		83,7	(-)
	Flaming droplets/debris		(-)	N

(-) – not applicable, Y – YES, N – NO

4. Classification and the field of application

4.1. Reference of the classification

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

4.2. Classification

Hardwood plywood flame-retardant treated by FIREFREE88® paint, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

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

d0

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour		Smoke production			Flaming droplets	
B	-	s	2	,	d	0

i.e.: **B-s2,d0**

Reaction to fire classification: B-s2,d0

4.3 Field of application

This classification is valid for the following end-use applications:

- Hardwood or mixed plywood flame-retardant treated by FIREFREE88® paint described in section 2 of this classification report and mounted directly or with an air-gap from the substrates with a reaction to fire class A1 or A2.
- The nominal thickness of plywood at least 9 mm
- Single or double-sided flame-retardant treatment of plywood

5. Limitations

This classification will be valid until:

- The test method remains unchanged,
- Product standard or technical approval remains unchanged,
- Constructional or material modifications do not exceed limits of the field of application defined in 4.3.

This classification report has been issued in three copies (two copies for Customer and one archive copy for Fire Research Department of ITB). Additional approved copies can be issued by Fire Research Department – Building Research Institute under the request of the report's owner only.

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

Signed



Katarzyna Kaczorek-Chrobak MPhil Eng.

**Head of Fire Development
and Material Testing Division**

Bartłomiej K. Papis, Ph.D. Eng.

Approved

HEAD
Fire Research Department

Pawel Salik, Ph.D. Civil Eng.