

Reaction to fire classification report No. 20495E

Owner of the classification report

JORIS IDE NV Hille 174 8750 Zwevezele Belgium

Introduction

This classification report defines the classification assigned to the products '*JI SLATE 1000SF PIR, JI ARDOISE 1000FC PIR and JI SIDINGS 1000SF PIR*' in accordance with the procedures given in the standard EN 13501-1:2018: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

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1. DETAILS OF CLASSIFIED PRODUCT

a) <u>General</u>

The products *JI SLATE 1000SF PIR, JI ARDOISE 1000FC PIR and* JI SIDINGS **1000SF PIR** are defined as a 'sandwich panel'.

Their classification is valid for the following end use application(s):

Used as roof and roof cladding. Also Used as external walls and wall cladding, walls (including partitions) and ceilings within the building envelope.

b) Product description

This description is based on information given by the sponsor.

		Nominal values (1)		
Trade name / product reference		JI SLATE 1000SF PIR (6)		
General description		ROOF/WALL Sandwich Panel		
Thickness according to § D.2.1 of EN 14509:2013		Sample 1: 120 (1)	Sample 1: 120 (2)	
(mm)		Sample 2: 60 (1)	Sample 2: 60 (1)	
Overall (total) thi	ckness (mm)	65 (sample 2) & 125	(sample 1)	
Overall weight p	er unit area (g/m²)	9770 (sample 2) and 12050 (sample 1)		
Name of manufa	acturer / supplier	JORIS IDE NV		
	Generic type	Polyester 15 micron		
	Product reference	PE15		
	Name of manufacturer	(4)		
	Colour	RAL9002 (Grey whit	e)	
Conting	Thickness of coating (mm)	0,015		
(Test feee)	Number of coats	2		
(Test lace)	Applied amount (g/m²) per layer	(5)		
	Application method	Likrol method		
	PCS-value (MJ/m ²)	0,4		
	Curing process per coat	Gas furnace		
	Use of fire retardants	None		
Generic type		Coated galvanised s	teel	
	Product reference	1002870		
Divid fooing	Name of manufacturer	(4)		
(Test face)	Density (kg/m³)	7850		
(Test lace)	Weight per unit area (g/m²)	2905		
	Thickness (mm)	0,37		
	Profile reference and height	Linear, profiling up to 1,3 mm		
Bonding Method	(facing to insulation)	Foaming Process (self-adhesive)		
	Generic type	Polyisocyanurate (PIR) foam		
	Trade name / product reference	JI40G		
	Name of manufacturer	JORIS IDE NV		
Inculation core	Thickness (mm)	Sample 1: 120 (1)	Sample 1: 120 (2)	
Insulation core	Thickness (mm)	Sample 2: 60 (1)	Sample 2: 60 (1)	
	Colour	Yellow		
	Density (kg/m³)	38		
	Use of fire retardants	No		

(1) Based on the information given by the sponsor

(2) Values verified by the laboratory

(3) Unverifiable by the laboratory

(4) Known by the laboratory

(5) Unknown by the sponsor

(6) Also commercially known as JI ARDOISE 1000FC PIR



		Nominal values (1)	
Bonding Method (facing to insulation)		Foaming Process (self-adhesive)	
Rigid facing (reverse face)	Generic type	Coated galvanised steel	
	Product reference	1005609	
	Name of manufacturer	(4)	
	Density (kg/m³)	7850	
	Weight per unit area (g/m²)	(5)	
	Thickness (mm)	0,45	
	Profile reference and height	Slate tile profile, profiling up to 5,0 mm	
	Generic type	Granite Deepmat	
	Product reference	GRANDEM	
	Name of manufacturer	(4)	
	Colour	RAL 7024	
	Thickness of coating (mm)	0,040	
	Number of coats	2	
(reverse lace)	Applied amount (g/m²) per layer	(5)	
	Application method	(5)	
	PCS-value (MJ/m ²)	1,8	
	Curing process per coat	(5)	
	Use of fire retardants	None	
	Type of product	Joint seal consisting of polyurethane	
	Product reference	Celdex Panelseal UF50R33A	
Joint seal	Thickness (mm)	5	
(integral part of	Width (mm)	Depending on panel thickness	
the panel)		25 mm for panel thickness 60 mm	
		90 mm for panel thickness 120 mm	
	PCS value (MJ/mm width/m)	0,0075	
	Type of product	Bieper 10*6mm – DISS_PE500	
Joint seal	Product Reference	Bieper 10*6mm – DISS_PE500	
	Thickness (mm)	6	
	Width (mm)	10	
	PCS value (MJ/mm width/m)	(5)	

(1) Based on the information given by the sponsor
(2) Values verified by the laboratory
(3) Unverifiable by the laboratory
(4) Known by the laboratory
(5) Unknown by the sponsor



JI SLATE 1000SF PIR vs JI SIDINGS 1000SF PIR

According to the information given by the sponsor, the only difference between the products JI SLATE 1000SF PIR (see Figures 1 & 2) and JI SIDINGS 1000SF PIR (see Figures 3 & 4) is the profile and geometry of the outside facing. JI SLATE 1000SF PIR has got as slate-tile profile (see Figure 5) with a maximum profiling of 5 mm, while JI SIDINGS 1000SF PIR has got a sidings profile (see Figure 6) with a maximum profiling of 5 mm. All other parameters (panel thickness, joint configuration, fixation) are identical for both products.

Since the outside facing was not the fire exposed side and this product parameter is not included in Table C.1 of the product standard EN 14509:2013, the profile geometry of the outside facing is considered irrelevant for the reaction to fire performance. Therefore the product JI SIDINGS 1000SF PIR can be added to the classification of JI SLATE 1000SF PIR without testing.



Figure 1: JI SLATE 1000SF PIR 120 mm



Figure 2: JI SLATE 1000SF PIR 60 mm





Figure 3: JI SIDINGS 1000SF PIR 120 mm



Figure 4: JI SIDINGS 1000SF PIR 60 mm





Figure 5: Outside facing JI SLATE 1000SF PIR



Figure 6: Outside facing JI SIDINGS 1000SF PIR





Figure 7: Panel-to-panel joint of JI SLATE 1000VB PIR

More details (e.g. mounting and fixing) are available in the test reports in support of this classification (§2a).

2. <u>TEST REPORTS AND EXAP REPORTS AND TEST RESULTS IN SUPPORT OF</u> <u>THIS CLASSIFICATION</u>

a) <u>Test reports (and EXAP reports)</u>

Name of the laboratory	Name of the sponsor	Test report ref. No. and test date	Test method and date
WFRGENT nv Ghent, Belgium	JORIS IDE NV	20495A: 09/07/2020	EN ISO 11925-2:2020
WFRGENT nv Ghent, Belgium	JORIS IDE NV	20495B: 08/07/2020 20495C: 08/07/2020	EN 13823:2020
WFRGENT nv Ghent, Belgium	JORIS IDE NV	20495D	EXAP according to CEN/TS 15117 (August 2005)



b) Test results

Official test results used for the classification

	Parameter	Number of tests	Results			
Test method			Continuous parameters Mean	Compliance parameters	Criteria for Class B-s2,d0	
					Continuous parameters	Compliance parameters
EN ISO 11925-2 (*) (1) 30 s flame application:						
<u>Surface exposure</u> - front side Edge exposure	F₅ ≤ 150 mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
- mid point 1,5 mm behind surface	F _s ≤ 150 mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
Edge exposure	F _s ≤ 150 mm	8	(-)	Yes	(-)	Yes
- turned 90 (*) The material didn't malt	nor null away from the	nilot hurno	(-)	INO	(-)	INO
() The material didn't men nor pull away from the pilot burner. (1) Based on the results obtained in test report No. 20495A – JI SLATE 1000SF PIR 60 mm.						
EN 13823 (2)	FIGRA 0,2 MJ (W/s) FIGRA 0,4 MJ (W/s)		56 50	(-) (-)	≤ 120 (-)	(-) (-)
	LFS _{<edge< sub=""> THR_{600s} (MJ) SMOGRA (m²/s²)</edge<>}		(-) 4,8 13	Yes (-)	(-) ≤ 7,5 < 180	Yes (-)
	TSP _{600s} (m ²) Flaming	3	116	(-)	≤ 200	(-)
	droplets/particles f < 10 s		(-)	No	(-)	No
	f > 10 s		(-)	No	(-)	No
(2) Based on the results obtained in test report No. 20495B – JI SLATE 1000SF PIR 120 mm.						

(-) Not applicable.

Comparative test results used for the determination of the worst case panel thickness

EN 13823 Test report No. 20495B	FIGRA 0,2 MJ (W/s)	FIGRA _{0,4 MJ} (W/s)	THR ₆₀₀ s (MJ)	SMOGRA (m²/s²)	TSP ₆₀₀ s (m ²)
Sample 1 (*): JI SLATE 1000SF PIR 120 mm	51	40	4,6	9	102
Sample 2: JI SLATE 1000SF PIR 60 mm	51	37	4,1	13	109

(*) The results of this sample were re-used in the official test report No. 20495C (as sample 1).



3. CLASSIFICATION AND FIELD OF APPLICATION

a) Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018. The related harmonized product standard is EN 14509:2013 and has been used for the mounting and fixing of the SBI test specimens and for the direct field of application.

b) Classification

The products *JI SLATE 1000SF PIR, JI ARDOISE 1000FC PIR and JI SIDINGS 1000SF PIR* in relation to their reaction to fire behavior are classified as:

Fire behavior	Smoke production	Flaming droplets
В	s2	d0

c) Field of application

This classification for the product as described in §1b, is valid for the following end use applications:

- Freestanding (product as such)
- Fire exposed side: internal steel sheet (see product description in §1b and next page)
- With or without joints as described on the next page see also Figure 8
- With corner flashings as described on the next page



According to EN 14509:2013 (Annex C, table C.1), this classification is valid for the following product parameters:

PARAMETER	FACTORS	VALIDITY OF TEST
	Grade of metal: Coated galvanised steel	Valid for all grades of tested metal type
	Thickness of metal facing excluding	
	organic coatings:	Valid for this (naccos 0.27 mm to 0.74 mm
	Exposed side: 0,37 mm	Valid for thicknesses 0,37 mm to 0,74 mm
	Profile geometry of inside facing	
Metal facing	(tested side):	
	Linear, profiling up to 1,3 mm	Valid for other types of flat or light profile
	Surface coating - tested face (see product description in §1b)	
	a) PCS of the tested coating: 0,4 MJ/m ²	Valid for all coatings in the range 0 to 4 MJ/m ²
	b) Colour of tested coating: RAL 9002	Valid for all colours
	Similar type of joint of the tested face with facings of the same profile – see 'Facings' above	Valid for similar types of overlapping joint where the metal overlapping tongue on the internal face is \geq 15 mm
Joint design	Joint Type III (see Figure C.3 of EN 14509:2013 for the different types of joints)	Valid for all types of joint
Adhesive	None	None
Quela and	Joint seal (external side): Bieper 10*6mm – DISS_PE500 (PCS value is unknown by the sponsor)	Valid only for the type of joint seal tested
gaskets	Joint seal (integral part of the panel): Celdex Panelseal UF50R33A	Valid for the tested joint seal: Celdex Panelseal UF50R33A with a thickness of 5 mm and a PCS value of 0,0075 MJ/mm width/m. Also valid for joint seals of equal or lower PCS-value.
	a) Chemical composition: PIR foam JI40G	Valid for the same chemical system and blowing agent
insulating core	b) Density: 38 kg/m³	Valid for 38 kg/m³ ± 15 %
Thickness of panel (D)	Tested thicknesses: 60 mm & 120 mm (thicknesses measured in accordance with § D.2.1 of EN 14509:2013)	Valid for thicknesses 60 mm & greater
Orientation of panels	Vertically tested	Valid for vertical and horizontal installed panels and ceiling applications
	External flashing:	
Metal corner	(D+50) mm x 50 mm x 0,50 mm	Valid for end use flashings of same material as tested
flashings	(D = panel thickness)	and of at least the same width and thickness
	1110000000000000000000000000000000000	
Plastic corner		
flashings	None	None
Fixings for metal flashings	Standard spacing is 400 mm	Valid for fixing spacing of 400 mm or less
Protection of cut edges	Without protection of cut edges	Valid with or without protective cut edges
Seals	None	None



4. <u>RESTRICTIONS</u>

At the time the standard EN 13501-1:2018 was published, no decision was made concerning the duration of validity of a classification report.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonized standards and technical specifications.

5. <u>WARNING</u>

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

The classification assigned to the product in this report is appropriate to a Declaration of Performance (DoP) by the manufacturer within the context of System 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that System 3 attestation is appropriate. The test laboratory has played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide evidence for the traceability of the samples tested.

PREPARED BY

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