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Testing. Advising. Assuring.

Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

Notified Body No:

0833

Product Name:

"Isocab Industrial Agroalimentaire"

Report No:

340536

Issue No:

3

Prepared for:

Kingspan Ltd
Greenfields Business Park No 2, Greenfields
Holywell, CH8 7GJ
Flintshire

Date:

23rd June 2014

1. Introduction

This classification report defines the classification assigned to "Isocab Industrial Agroalimentaire", a Self-supporting double skin metal faced insulating panel as defined in EN 14509, in accordance with the procedures given in EN 13501-1:2007

2. Details of classified product

2.1 General

The product, "Isocab Industrial Agroalimentaire", a Self-supporting double skin metal faced insulating panel as defined in EN 14509 is defined as suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, "Isocab Industrial Agroalimentaire", a Self-supporting double skin metal faced insulating panel as defined in EN 14509, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description			A coated profiled steel faced foam Insulation panel
Product reference of system			"Isocab Industrial Agroalimentaire"
Overall product thickness Note: The maximum and minimum values include a 1.7 mm internal profile			60 mm and more
Product configuration			• Coating (Test face) • Profiled steel • Insulation • Profiled steel • Coating (Reverse face)
Coating system	Product reference		"Internal Liner Sheet"
	Name of manufacturer		Thyssen Krupp
	Overall application thickness		25 microns ± 10%
	Colour		"White"
	Top coat (Test face)	Product reference	"Pladur"
		Generic type	polyester
		Number of coats	One
		Application thickness	25 microns
		Application method	Roller
		Curing process	Oven
	The PCS of the coating was determined (test reference 14589E) to be 0.517 MJ/m^2 according to EN 14782 § 5.2.2		
	Backing coat		**See Note 1**
Profiled steel sheet		Product reference	"Pladur"
		Generic type	Double sided corrosion coated S280 GD
		Name of manufacturer	Isocab
		Thickness	0.50 mm ±10%

		Profile reference	"Microline"
Bonding method (steel to insulation)			Auto adhesively bonded during the manufacturing process
Insulation		Product reference	"Isophenic – (SP40)"
		Generic type	Hydrochlorofluorocarbon (HCFC) free closed cell PIR foam
		Name of manufacturer	Isocab
		Thickness	60 mm and more
		Density	38 kg/m^3 ±10%
		Flame retardant details	**See Note 3**
Bonding method (insulation to steel)			Auto adhesively bonded during the manufacturing process
Profiled steel sheet		Product reference	"External Weather Sheet"
		Generic type	Double sided corrosion coated S280 GD
		Name of manufacturer	Isocab
		Thickness	0.50 mm ±10%
		Weight per unit area	**See Note 1**
		Profile reference	"Standard Rib"
		Flame retardant details	**See Note 1**
Coating system	Product reference		"Pladur"
	Name of manufacturer		Macrometal
	Overall application thickness		25 microns ±10%
	Colour		"White"
	Primer	**See Note 1**	
	Top coat	Product reference	"Pladur"
		Generic type	Polyester
		Colour	"White"
		Number of coats	One
		Application thickness	25 microns
		Application method	Roller
		Curing process	Oven
Mounting and fixing details			A 40 mm ventilated cavity was situated between the reverse face of the specimens and the calcium silicate backing board (as defined in EN 13238: 2010). Vertical joints were incorporated into the specimen.
Brief description of manufacturing process of panel			**See Note 2**

Note 1: The sponsor was unable to provide this information.

Note 2: The sponsor of the test has provided this information but at the specific request of the sponsor it has been omitted from the report and is instead held on the confidential file relating to this investigation.

Note 3: The sponsor was unwilling to provide this information.

3. Test reports & test results in support of classification

3.1 Test reports

Name of Laboratory	Name of sponsor	Test reports Nos.	Test method
Exova warringtonfire	Kingspan Limited	WF 333285, WF340211	EN 13823
Exova warringtonfire	Kingspan Limited	WF 333286, WF 340213	EN ISO 11925-2

3.2 Test results (worst classification results from formal tests are given in the table)

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN 13823	$Figra_{0.2\ MJ}$ (W/s)	3 + 5	33.5	Compliant
	$THR_{600\ s}$ (MJ)		2.26	Compliant
	Smogra (m^2/s^2)		0	Compliant
	$TSP_{600\ s}$ (m^2)		38.8	Compliant
	LFS (y/n)		N	Compliant
	Flaming droplets (y/n) <10 s (y/n) >10 s (y/n)		N	Compliant
EN ISO 11925-2 30 s surface exposure	Flame spread (mm)	6 + 6	nil	Compliant
	Flaming droplets (y/n)		N	Compliant
30 s edge exposure	Flame spread (mm)	6 + 6	nil	Compliant
	Flaming droplets (y/n)		N	Compliant
30 s core exposure	Flame spread (mm)	6 + 6	74	Compliant
	Flaming droplets (y/n)		N	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2007

4.2 Classification

The product, "Isocab Industrial Agroalimentaire", a Self-supporting double skin metal faced insulating panel as defined in EN 14509, in relation to its reaction to fire behaviour is classified:

Reaction to fire classification: B-s1, d0

4.3 Field of application

This classification is valid for the following end use applications, as defined in connection with EN 14509:2013

i) Wall and ceiling applications

ii) Free standing

This classification is also valid for the following product parameters as determined in connection with EN 14509:2013:

Product thickness	60 mm and more
Facing thickness	0.25 mm up to 0.75 mm
Facing colour	any colour
Coating type	any coating with a PCS value of up to 4.0 MJ/m^2
Profile geometry	any profile up to 5 mm
Core density	± 15% of tested density
core composition	No variation allowed

The classification is valid for both faces of the product

SIGNED

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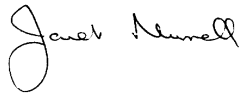
Frans Paap

Certification Engineer

APPROVED



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Janet Murrell

Technical Manager
on behalf of **Exova warringtonfire**

Issue 2 was prepared on 1st July 2014

Issue 3 was prepared on 17th July 2014