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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:

"KS1000/2000 RW
QuadCore"

Report No:

WF 389005

Issue No:

1

Prepared for:

Kingspan Limited,
Dublin Rd,
Kingscourt,
County Cavan,
Ireland

Date:

14th September 2017



1. Introduction

This classification report defines the classification assigned to “KS1000/2000 RW QuadCore”, a coated profiled steel faced insulation panel, in line with the procedures given in EN 13501-1:2007+A1: 2009.

2. Details of classified product

2.1 General

The product, “KS1000/2000 RW QuadCore”, a coated profiled steel faced insulation panel, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, “KS1000/2000 RW QuadCore”, a coated profiled steel faced insulation panel, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		The product “KS1000/2000 RW QuadCore” is a coated profiled steel faced insulation panel	
Product reference of system		KS1000/2000 RW	
Overall product thickness		40 – 150mm	
Overall weight per unit area of composite		The sponsor was unable to provide this information.	
Product configuration		<ul style="list-style-type: none"> • Coating (test face) • Profiled steel • Insulation • Profiled steel • Coating (reverse face) 	
Coating system	Product reference	Internal Liner sheet	
	Name of manufacturer	Eurasteel	
	Overall application thickness	15 microns ± 10%	
	Colour	White	
	Top coat (Test face)	Product reference	Bright white internal liner
		Generic type	Polyester
		Name of manufacturer	The sponsor was unable to provide this information.
		Colour	White
		Number of coats	One
		Application thickness	15 microns
		Application method	Roller
		Curing process	Oven
	Flame retardant details	See Note 1	
	Backing coat	Product reference	See Note 1
		Generic type	See Note 1
		Name of manufacturer	See Note 1
		Colour	See Note 1
Number of coats		See Note 1	
Application thickness		See Note 1	
Application method		See Note 1	
Curing process		See Note 1	
Flame retardant details	See Note 1		

Profiled steel sheet	Product reference	Internal Liner Sheet	
	Generic type	Galvalloy S220GD+Z	
	Name of manufacturer	Kingspan Limited	
	Thickness	0.32mm ± 10%	
	Weight per unit area	See Note 1	
	Profile reference	EB (Equi Bead)	
Flame retardant details		See Note 1	
Bonding method (steel to insulation)		Auto adhesively bonded during the manufacturing process	
Insulation	Product reference	"QuadCore"	
	Generic type	Kingspan CFC/HCFC/HFC free hybrid insulation	
	Name of manufacturer	Kingspan Limited	
	Thickness	40 – 150mm	
	Density	38kg/m3 ± 10%	
	Flame retardant details	See Note 2	
Bonding method (insulation to steel)		Auto adhesively bonded during the manufacturing process	
Profiled steel sheet	Product reference	TATA Steel	
	Generic type	Galfan ZA265 S220GD+Z	
	Name of manufacturer	Kingspan Limited	
	Thickness	0.465mm ± 10%	
	Weight per unit area	See Note 1	
	Profile reference	RW- Trapezoidal	
Flame retardant details		See Note 1	
Coating system	Product reference	External weather sheet (Spectrum)	
	Name of manufacturer	TATA Steel	
	Overall application thickness	55 microns ± 10%	
	Colour	See Note 1	
	Primer	Product reference	See Note 1
		Generic type	See Note 1
		Name of manufacturer	See Note 1
		Colour	See Note 1
		Number of coats	One
		Application thickness	25 microns
		Application method	Roller
		Curing process	Oven
	Flame retardant details		See Note 1
	Top coat	Product reference	External weather sheet
		Generic type	Polyester
		Name of manufacturer	See Note 1
		Colour	See Note 1
		Number of coats	One
Application thickness		30 microns	
Application method		Roller	
Curing process		Oven	
Flame retardant details		See Note 1	
Air space details		See Note 1	
Brief description of manufacturing process of panel		See Note 1	

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

Note 2: The sponsor was unwilling to provide this information.

The description of the specimens as given above is not as detailed as would usually be the case for descriptions included in **Exova Warringtonfire** test reports and the description may not fully comply with the requirements of the test standard. In all other respects however the tests were conducted fully in accordance with the requirements of the test standard and the test results are valid

3. Test reports & test results in support of classification

3.1 Test reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
BRE Global	Kingspan Limited	P100160-1010, P100160-1011	EN ISO 11925-2
BRE Global	Kingspan Limited	P100160-1017, P100160-1016	EN 13823

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 11925-2 (30s exposure - surface)	F _s	12, 6	Nil, Nil	Compliant
	Flaming droplets/ particles		None, None	Compliant
EN ISO 11925-2 (30s exposure – edge turned at 90 degrees)	F _s	6, 6	67mm, 88 mm	Compliant
	Flaming droplets/ particles		None, None	Compliant
EN 13823	FIGRA _{0.2MJ}	3, 3	18.6, 48.0	Compliant
	FIGRA _{0.4MJ}		15.7, 40.8	Compliant
	THR _{600s}		1.6, 1.8	Compliant
	LFS		None,	Compliant
	SMOGRA		1.7, 5.8	Compliant
	TSP _{600s}		46.0, 46.7	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+A1:2009 and BS EN 14509:2013.

4.2 Classification

The product, "KS1000/2000 RW QuadCore", a coated profiled steel faced insulation panel, in relation to their reaction to fire behaviour are classified:

B

The additional classification in relation to smoke production is:

s1

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

d0

The format of the reaction to fire classification for construction applications, excluding flooring and linear pipe thermal insulation is:

Fire Behaviour		Smoke Production			Flaming Droplets	
B	-	s	1	,	d	0

i.e. **B – s1 , d0**

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

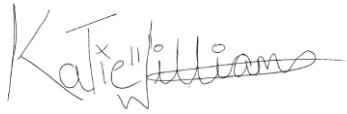
This classification is also valid for the following product parameters as determined in connection with EN 14509:2013:

Overall product thickness	40 – 150 mm
Insulation thickness	40 – 150 mm
Thickness of metal facing	0.32 mm ± 10%
Surface coating	Valid for all coatings with a PCS value in the range 0 to 4 MJ/m ²
Density of insulation	38kg/m ³ ± 10%
Product weight per unit area	No variation allowed
Product colour/pattern	Any colour
Product composition	No variation allowed

Product construction

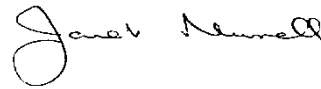
No variation allowed

SIGNED



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Junior Certification Engineer

APPROVED



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on behalf of **Exova Warringtonfire**

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