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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:

Tata Steel Colorcoat Prisma Elements

Report No:

384268

Issue No:

2

Prepared for:

Tata Steel
Shotton Works
Deeside
Flintshire
CH 5 2NH

Date: 26th May 2017

UKAS TESTING
0249

1. Introduction

This classification report defines the classification assigned to 'Tata Steel Colorcoat ® Prisma Elements', a high build multi layer PVDF coated steel, in accordance with the procedures given in EN 13501-1:2007

2. Details of classified product

2.1 General

The product, 'Tata Steel Colorcoat ® Prisma Elements', a high build multi layer PVDF coated steel, is defined as being suitable for wall or ceiling applications.

2.2 Product description

The product, 'Tata Steel Colorcoat ® Prisma Elements', a high build multi layer PVDF coated steel, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description			Colorcoat pre finished steel
Product reference of system			Colorcoat Prisma Elements
Overall thickness of steel sheet			0.45mm
Coatings ('internal' test face)	Top coat	Product reference	PVDF (metallic/sparkle)
		Generic type	PVDF
		Name of manufacturer	Tata Steel
		Colour	Any
		Number of coats	1
		Application thickness	12-28 micron
		Application method	Roller coat
		Curing process	PMT 250'C
		Flame retardant details	None present
	Intermediate coat	Product reference	PVDF mid
		Generic type	PVDF
		Name of manufacturer	Tata Steel
		Colour	Various
		Number of coats	1
		Application thickness	20 microns dry film
		Application method	Roller coat applied
		Curing process	PMT 232^{0}C minimum
		Flame retardant details	None Present
	Primer coat	Product reference	Polyester chrome free primer
		Generic type	Polyester
		Name of manufacturer	Tata Steel
		Colour	Any
		Number of coats	1
		Application thickness	7 – 10 microns dry film
		Application method	Roller coat
		Curing process	PMT 216'C
		Flame retardant details	None present
Steel sheet		Product reference	Galvalloy
		Generic type	Galvanised steel
		Name of manufacturer	Tata steel
		Thickness	0.4
		Weight per unit area	3.16 - 3.92 Kg/m^2

Single coat backing coat option

*	Topcoat	Product reference	Single coat backer
		Generic type	Polyester
		Name of manufacturer	Tata Steel
		Colour	Grey
		Number of coats	1
		Application thickness	10 micron dry film
		Application method	Roller coat applied
		Curing process	PMT 224^{0}C minimum
		Flame retardant details	None present

Double sided backing coat option

Coatings ('internal' test face)	Primer coat	Product reference	Polyester chrome free primer
		Generic type	Polyester
		Name of manufacturer	Tata Steel
		Colour	White
		Number of coats	1
		Application thickness	10 micron dry film
		Application method	Roller coat applied
		Curing process	PMT 216^{0}C minimum
		Flame retardant details	None present
	Top Coat	Product reference	Coloured PVDF
		Generic type	PVDF
		Name of manufacturer	Tata Steel
		Colour	Black
		Number of coats	1
		Application thickness	20 microns dry film
		Application method	Roller coat applied
		Curing process	PMT 232^{0}C minimum
		Flame retardant details	None Present
General description		Colorcoat pre finished steel	
Description of construction of specimens		The flat pre finished steel sheeting was attached to a fabricated metal support frame. A folded metal flashing of the same material was fitted to the internal corner. The metal framework, metal sheeting dimensions and attachment of the sheeting to the framework, were as detailed in EN14782.2005 annex C.	
Joint Details		A vertical overlap joint was included in the long wing of the test assembly. This was as detailed in EN14782.2005 annex C.	

3. Test reports/extended application reports & test results in support of classification

3.1 Test reports/extended application reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Warringtonfire	Corus	WF 168048 WF 168049	EN 13823
Exova Warringtonfire	Tata Steel	WF 378292 - 4	EN ISO 1716
IJmuiden	Corus	200312015/17	EN ISO 1716

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN 13823	FIGRA $_{0.2MJ}$	3	0.0 – 1.0	Compliant
	FIGRA $_{0.4MJ}$		0.0 - 1.0	Compliant
	THR $_{600s}$		0.37 – 0.48	Compliant
	LFS		N	Compliant
	SMOGRA		0.0	Compliant
	TSP_{600s}		26.1 - 28.8	Compliant
EN ISO 1716	PCS ≤ 3,0 MJ/kg (1) PCS ≤ 4,0 MJ/ m² (2) PCS ≤ 4.0 MJ/m² (3) PCS ≤ 3,0 MJ/kg (4)			
	Total	3	0.11 - 0.29MJ/kg	Y
	Top Coat	3	0.39 - 0.74MJ/m²	Y
	Intermediate Coat	3	0.65 MJ/m^2	Y
	Primer Coat	3	0.18 – 0.30MJ/m²	Y
	Steel	3	0.0 MJ/kg	Y
	Primer Coat	3	0.30 MJ/m^2	Y
	Reverse Top Coat	3	0.65 MJ/m^2	Y

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 10 of EN 13501-1:2007

4.2 Classification

The product, 'Tata Steel Colorcoat ® Prisma Elements', in relation to its reaction to fire behaviour is classified:

A1

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for the following end use applications:

i) Wall or Ceiling Applications, mounted with or without an air gap on to any substrate having a density equal to or greater than 800kg/m³, with a minimum thickness of 6mm and a fire performance of A2 or better

This classification is also valid for the following product parameters:

Product gauge	Greater than or equal to 0.4mm
Product coating thickness	Less than or equal to 58 microns
Product colour	Any
Product composition	No variation allowed

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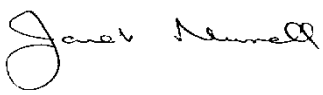
Katie Williams
Junior Certification Engineer
Technical Department

APPROVED



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Janet Murrell
Technical Manager
Technical Department
on behalf of **Exova Warringtonfire**

Issue 2: 13th June 2017