

Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE
IN ACCORDANCE WITH
EN 13501-1:2018.

Product Name:

"Dura Deck Aluminium SD 18mm"/
"Dura Deck Aluminium HD 27mm"

Report No:

502441

Issue No:

2

Prepared for:

Dura Composites Ltd
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Date:

20 May 2021

1. Introduction

This classification report defines the classification assigned to "Dura Deck Aluminium SD 18mm"/ "Dura Deck Aluminium HD 27mm", a family of polyester powder coated aluminium decking products, in accordance with the procedures given in EN 13501-1:2018.

2. Details of classified product

2.1 General

The products, "Dura Deck Aluminium SD 18mm"/ "Dura Deck Aluminium HD 27mm", a family of polyester powder coated aluminium decking products, are defined as being suitable for floorcovering applications.

2.2 Product description

The products, "Dura Deck Aluminium SD 18mm"/ "Dura Deck Aluminium HD 27mm", a family of polyester powder coated aluminium decking products, are fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Polyester powder coated aluminium decking
Product reference		"Dura Deck Aluminium SD 18mm" / "Dura Deck Aluminium HD 27mm"
Name of manufacturer		Dura Composites Ltd
Overall thickness		18 – 27mm (1-3mm flat sheet of profile)
Overall weight per unit area		8.4 – 13.26 kg/m ² (stated by sponsor) 7.71kg/m ² – 11.54 kg/m ² (determined by Warringtonfire)
Final coating product (Test face)	Generic type	Polyester powder coating
	Product reference	"Interpon 810 Series"
	Name of manufacturer	Akzo Nobel Powder Coatings
	Colour reference	"RAL 1019" Cedar (tested) "RAL 7001" Mist (tested) "RAL 7043" Anthracite (tested) "RAL 8014" Sepia Brown "RAL 7006" Beige Grey "RAL 7016" Anthracite Grey "RAL 7037" Dusty Grey "RAL 8003" Clay Brown "RAL 8017" Chocolate Brown "RAL 8019" Grey Brown
	Number of coats	1
	Application rate in g/m ² per coat	167g/m ²
	Specific gravity	1.2-1.7g/cm ³
	Application method	Electrostatically applied
	Flame retardant details	See Note 1 Below
	Curing process	Heated to 180 °C

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Substrate	Generic type	Aluminium Extrusion
	Product reference	"6063 T6"
	Name of manufacturer	Dura Composites Ltd
	Thickness	1-3mm
	Weight per length	0.96 – 1.66 kg/lm
	Weight per unit area	7.85kg/m ² – 11 kg/m ²
	Flame retardant details	See Note 1 Below
Substrate / mounting		The specimens were tested loose laid with an 8mm thick fibre cement board substrate as specified in EN 13238: 2010 present.
Brief description of manufacturing process of coatings		Aluminium is extruded from raw material into a profile, then coated with powder coat paint by spray guns

Note 1: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

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
Warringtonfire	Dura Composites Ltd	501333 (Issue 2)	EN ISO 9239:2010
Warringtonfire	Dura Composites Ltd	501331 (Issue 2) 501332 (Issue 2) 501335 (Issue 2)	EN ISO 9239:2010 Indicative
Warringtonfire	Dura Composites Ltd	WF 501337 WF 501338 WF 501339	EN ISO 1716:2018
Warringtonfire	Dura Composites Ltd	501340 (Issue 2)	EN ISO 1716:2018 Composite Report
Warringtonfire	Dura Composites Ltd	502442 (Issue 2)	EN 15117:2005 EN 15725:2010

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - Max/ Mean (m)	Compliance with parameters
EN ISO 9239-1	CFE	1	≥11.0 kW/m ² (501331 (I2)-Cedar-Parallel-SD)	-
			≥11.0 kW/m ² (501332 (I2)-Mist-Parallel-SD)	-
			≥11.0 kW/m ² (501333 (I2)-Anthracite-Parallel-SD)	-
			≥11.0 kW/m ² (501335 (I2)-Anthracite-Parallel-HD)	-
		3	≥11.0 kW/m ² (501333 (I2)-Anthracite-Perpendicular-SD)	-
	Smoke development (%/min)	1	0 % (501331 (I2)-Cedar-Parallel-SD)	-
			6 % (501332 (I2)-Mist-Parallel-SD)	-
			3 % (501333 (I2)-Anthracite-Parallel-SD)	-
0 % (501335 (I2)-Anthracite-Parallel-HD)			-	
3		5 % (501333 (I2)-Anthracite-Perpendicular-SD)	-	
EN ISO 1716	Coating - PCS (b)	3	3.5 MJ/m ² (Cedar-RAL 1019)	-
			3.5 MJ/m ² (Mist-RAL 7001)	-
			3.4 MJ/m ² (Anthracite-RAL 7043)	-
	Aluminium – PCS (a)	Deemed to Satisfy (0.0 MJ/kg)		-
	For the product as a whole – PCS (e)	N/a	≤ 0.4 MJ/kg*	-

* EN ISO 1716 Calculations were conducted on the "Dura Deck Aluminium SD 18mm" profile (as reported in WF 501340 as it possesses a reduced profile weight per unit area. The "Dura Deck Aluminium HD 27mm" profile possesses the same weight/area of coating with an increased weight per unit area of Aluminium and therefore can be deemed to meet an equivalent if not better PCS (e) performance.

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 9 of EN 13501-1:2018, EN 15725:2010 and EN/TS 15117:2005.

4.2 Classification

The products, "Dura Deck Aluminium SD 18mm"/ "Dura Deck Aluminium HD 27mm, a family of polyester powder coated aluminium decking products, in relation to their reaction to fire behaviour are classified:

A2_{fl}

The additional classification in relation to smoke production is:

s1

The format of the reaction to fire classification for floorings is:

Fire Behaviour		Smoke Production	
A2_{fl}	-	s	1

i.e. A2_{fl} – s1

Reaction to fire classification: A2_{fl}– s1

4.3 Field of application

This classification is valid for the following end use applications:

i) Floorcovering applications with the aluminium decking applied over any substrate material which has a minimum density of 1200kg/m³, a minimum thickness of 6mm and a Reaction to fire classification of A2fl-s1 or better

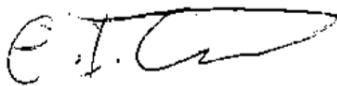
This classification is also valid for the following product parameters:

Product thickness	No variation allowed
Product density	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed
Colour	Colours allowed as listed
	No further variation allowed

5. Limitations

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

SIGNED



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Euan Gardner
Certification Engineer
Technical Department

APPROVED



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Stacey Deeming
Principal Engineer
Technical Department
On behalf of **Warringtonfire**

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Issue No: 2	Re-issue Date: 19 July 2024
Revised By: Michael Walford	Authorised By: S. Deeming
Reason for Revision: This document replaces issue 1 (dated 20 May 2021) of the same number which has been withdrawn. This has been updated to include up-issues to a number of test reports, following additional information being provided by the client with regards to the overall weight per unit area of the product range, and a correction to the stated weight per unit length values.	