

Title:

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

Product Name:

" ADEK "

Report No:

WF 501368

Issue No:

1

Prepared for:

Specialist Building Products T/a Ecodek
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Date:

23rd April 2021

1. Introduction

This classification report defines the classification assigned to "ADEK", a family of powder coated aluminium decking profiles, in accordance with the procedures given in EN 13501-1:2018.

2. Details of classified product


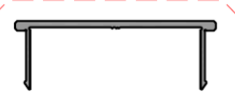


2.1 General

The product, "ADEK", a family of powder coated aluminium decking profiles, is defined as being suitable for floorcovering applications.

2.2 Product description

The product, "ADEK", a powder coated aluminium decking profile, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Powder coated aluminium decking profile
Product reference		"ADEK"
Tested product references		"A-DEK20"/"A-DEK30"
Name of manufacturer		Ecodek
Profile thickness		20-30mm (stated by sponsor) 20.16mm - 30.34mm (determined by Warringtonfire)
Overall weight per unit area		13.30 kg/m ² - 14.55kg/m ² (determined by Warringtonfire for 295mm specimens)
Coating	Generic type	Polyester powder coating
	Product reference	"SL316G"
	Name of manufacturer	Akzo Nobel
	Colour reference	"RAL7016 – Anthracite Grey"
	Number of coats	Single coat
	Application rate	0.145kg/m ² (100um)
	Application thickness	60-100µm
	Density	1.45g/cm ³
	Application method	Spray applied
	Curing process	Heat cured (170 - 190°C)
Flame retardant details		See Note 1 Below
Aluminium	Generic type	Aluminium
	Product reference	"Alloy grade 6063 T6"
	Name of manufacturer	Cortizo
	Top panel Thickness	1.75mm (147mm width) 2.5mm (295mm width)
	Weight per unit area	1.42 kg/m ² (Comfort-1.75mm-147mm-30mm) 3.002 kg/m ² (Comfort-2.5mm-295mm-20mm) 3.407kg/m ² (Comfort-2.5mm-295mm-30mm) 3.57kg/m ² (Enhanced-2.5mm-295mm-30mm)
	Profile width	147mm OR 295mm
	Profile height/thickness	20mm (A-DEK20) 30mm (A-DEK30)
	Profile	Comfort Grip OR Enhanced Grip
	Colour reference	RAL7016 – Anthracite Grey
	Flame retardant details	

Diagram of "Comfort" profile	
Diagram of "Comfort" profile channel cover	
Diagram of "Enhanced" profile	
Diagram of "Enhanced" profile channel cover	
Brief description of manufacturing process	Billet aluminium extruded through die blocks

Note 1: The sponsor of the test has confirmed that no flame retardants were used in the production of this 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	Ecodeck	WF 421075 – Issue 2	BS EN ISO 1716:2018
Warringtonfire	Ecodeck	WF 424067 WF 424068 - Issue 2	BS EN ISO 1716:2018 Composite Report
Warringtonfire	Ecodeck	WF 423366-Issue 2 WF 423367-Issue 2	BS EN ISO 9239-1:2010
Warringtonfire	Specialist Building Products T/a Ecodek	WF 501296-Issue 2 WF 437268-Issue 2	EN ISO 9239-1:2010 Indicative
Warringtonfire	Ecodeck	WF 424311 WF 424313	EN 13501-1:2018
Warringtonfire	Specialist Building Products T/a Ecodek	WF 501369	EN 15117:2005 EN 15725:2010

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN ISO 1716	Coating - PCS (b)	3	3.0 MJ/m ²	-
	AI decking - PCS (b)	Deemed to Satisfy (0.0 MJ/kg)		-
	For the product as a whole – PCS (e)	3	≤ 1.9 MJ/kg	-
EN ISO 9239-1	Critical flux	3	> 11 kW/m ² (WF 423367-30mm-2.5mm-Comfort)	-
		3	> 11 kW/m ² (WF 423366-20mm-2.5mm-Comfort)	-
		1	> 11 kW/m ² (WF 437268-30mm-2.5mm-Enhanced-Parallel)	-
		1	> 11 kW/m ² (WF 437268-30mm-2.5mm-Enhanced-Perpendicular)	-
		1	> 11 kW/m ² (WF 501296-30mm-1.75mm-Comfort)	-
	Smoke	3	5.88 %min (WF 423367-30mm-2.5mm-Comfort)	-
		3	2.36 %min (WF 423366-20mm-2.5mm-Comfort)	-
		1	0.11 %min (WF 437268-30mm-2.5mm-Enhanced -Parallel)	-
		1	5.85 %min (WF 437268-30mm-2.5mm-Enhanced-Perpendicular)	-
		1	5.00 %min (WF 501296-30mm-1.75mm-Comfort)	-

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 and EN/TS 15117:2005 and EN 15725:2010.

4.2 Classification

The product, "A-DEK", a family of powder coated aluminium decking profiles, in relation to its reaction to fire behaviour is 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

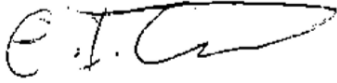
This classification is also valid for the following product parameters:

Decking Composite Height	20mm-30mm
Decking Surface Profile	Enhanced or Comfort Grip allowed
Decking Width & Thickness	147mm & 1.75mm OR 295mm & 2.5mm
Product colour	No variation allowed
Product composition	No variation allowed
Product construction	No 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



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

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