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Title:

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

Product Name:

“Adek 30”

Report No:

WF 504622

Issue No:

1

Prepared for:

Ecodek
Unit 13 Abenbury Way
Wrexham Industrial Estate
Wrexham
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Date:

1st July 2021

1. Introduction

This classification report defines the classification assigned to “Adek 30”, a powder coated aluminium decking profile, in line with the procedures given in EN 13501-1: 2018.

2. Details of classified product

2.1 General

The product, “Adek 30”, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, “Adek 30”, 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 30”
Name of manufacturer		Ecodek
Profile thickness		30mm (stated by sponsor) 30.34mm (determined by Warringtonfire)
Overall weight per unit area		14.55kg/m^2 (determined by Warringtonfire)
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
	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
	Thickness	2.5mm
	Weight per unit area	3.407kg/m^2
	Colour reference	RAL7016 – Anthracite Grey
	Flame retardant details	**See Note 1 Below**
Diagram of profile		
Diagram of channel cover		

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Joint details	Tested with vertical joints
Mounting and fixing details	A 40mm ventilated cavity was situated between the reverse face of the specimens and the fibre cement board substrate as defined in EN 13238:2010
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	Ecodek	WF 421075 (Issue 2)	EN ISO 1716: 2018
Warringtonfire	Ecodek	WF 505367	EN ISO 1716: 2018 Composite summary report
Warringtonfire	Ecodek	WF 503663	EN 13823: 2020

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 W/s	-
	FIGRA $_{0.4MJ}$		0 W/s	-
	THR $_{600s}$		0.0 MJ	-
	LFS		-	Compliant
	SMOGRA		0 m^2s^2	-
	TSP_{600s}		14 m^2	-
	Fall of Flaming Droplet/Particle?		-	Compliant
	Flaming of Fallen Particle Exceeding 10s?		-	Compliant

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EN ISO 1716	Coating - PCS (b)	3	3.0 MJ/m² (20.5 MJ/kg)	-
	Aluminium - PCS (a)	Deemed to satisfy (0.00)		-
	For the product as a whole PCS (e)	Summary result	0.8 MJ/Kg	-

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: 2018.

4.2 Classification

The product, “Adek 30”, a powder coated aluminium decking profile, in relation to its reaction to fire behaviour is classified:

A2

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	
A2	**-**	**s**	**1**	**,**	**d**	**0**

i.e. A2 – s1 , d0

Reaction to fire classification: A2 – s1, d0

4.3 Field of application

This classification is valid for the following end use applications:

i) Construction applications mounted with a minimum 40mm air space over any substrate with a density equal to or greater than 1350kg/m^3, having a minimum thickness of 6mm and a fire performance of A2-s1,d0 or better (excluding paper faced gypsum plasterboard).

ii) Airgap ≥40mm

This classification is also valid for the following product parameters:

Product thickness	No variation allowed
Product weight per unit area	No variation allowed
Coating colour	No variation allowed
Coating application rate	No variation allowed
Profile	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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Stacey Deeming
Principal Engineer
Technical Department

APPROVED

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Matthew Dale
Principal Certification Engineer
Technical Department
on behalf of Warringtonfire