Reaction to fire classification report No. 21248D

Owner of the classification report

MyDek Limited
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Introduction

This classification report defines the classification assigned to the products ***Vista, Delta20, Delta30, Innova*** in accordance with the procedures given in the standard EN 13501-1:2018: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

This classification report consists of 8 pages and may only be used or reproduced in its entirety

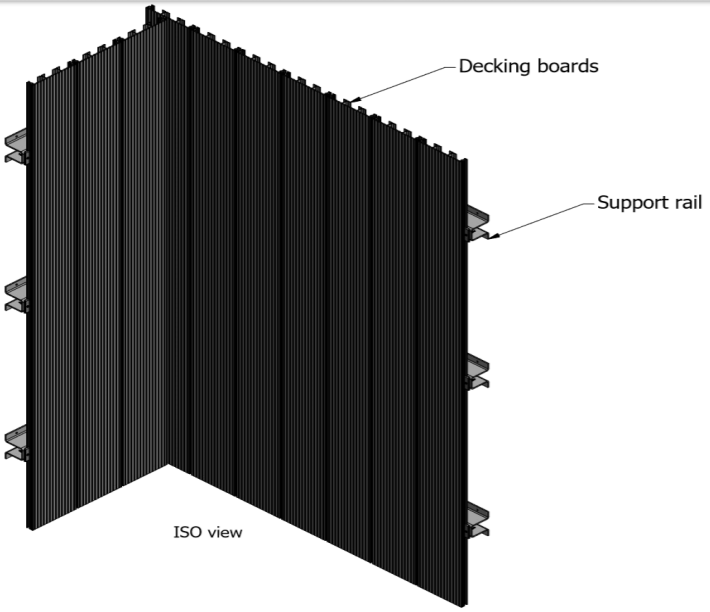
1. DETAILS OF CLASSIFIED PRODUCT

a) General

The products ***Vista, Delta20, Delta30, Innova*** is defined as a coated aluminium decking board.
Its classification is valid for the following end use application(s):
Used as a cladding product in construction applications

b) Product description

This description is based on information given by the sponsor.

	Nominal values (1)		
General description	Aluminium decking board		
Product reference	"Vista","Delta30", "Delta 20", "Innova"		
Name of manufacturer	MyDek Ltd		
Overall thickness (coated aluminium decking)	Delta30: 30mm (1) Delta20, Innova, Vista: 20mm (1)		
Overall weight per unit area (coated aluminium decking)	Delta30: 14.0256 kg/m² (1) Delta20: 12.6356 kg/m² (1) Innova: 8.8256kg/m² (1) Vista: 11.77kg/m²		
Profile diagram (Delta)			
	Delta	Innova	Vista
Diagram of tested specimens			

(1) Based on the information given by the sponsor
(3) Unverifiable by the laboratory

		Nominal values (1)
Coating	Generic type	Polyester powder coating
	Product reference	“Interpon D2525 (D2000 series)”
	Name of manufacturer	Akzo Nobel
	Colour reference	“RAL3004”, “RAL 9005” & “RAL9010” as tested
	Colour	Any Red, Black, White as tested
	Application thickness	80-120 microns (1) (3)
	Application rate	0.108-0.1872kg/m^2 (1) (varies with colour at each thickness)
	Specific gravity	1.35-1.56g/cm^3 (1) (varies with colour)
	Application method	Spray
	Flame retardant details	None
	Curing process	Heat (150 - 200°C)
Aluminium decking board (Profile option 1)	Generic type	Aluminium
	Product reference	“Delta30”
	Name of manufacturer	MyDek Ltd.
	Thickness (profile height)	30mm (1)
	Thickness (face)	2.5mm (1)
	Weight per unit area	13.86kg/m² (1)
	Flame retardant details	None
Aluminium decking board (Profile option 2)	Generic type	Aluminium
	Product reference	“Delta20”
	Name of manufacturer	MyDek Ltd.
	Thickness (profile height)	20mm (1)
	Thickness (face)	2.5mm (1)
	Weight per unit area	12.47kg/m² (1)
	Flame retardant details	None
Aluminium decking board (Profile option 3)	Generic type	Aluminium
	Product reference	“Innova”
	Name of manufacturer	MyDek Ltd.
	Thickness (profile height)	20mm (1)
	Thickness (face)	1.55mm (1)
	Weight per unit area	8.66kg/m² (1)
	Flame retardant details	None
Aluminium decking board (Profile option 4)	Generic type	Aluminium
	Product reference	“Vista”
	Name of manufacturer	MyDek Ltd.
	Thickness (profile height)	20mm (1)
	Thickness (face)	2.5mm (1)
	Weight per unit area	11.77kg/m² (1)
	Flame retardant details	None
Brief description of manufacturing process		Powder coating is based on polymer resin combined with pigments, curative, flow modifiers, levelling agents, and several other additives. All ingredients are melt-mixed together, then cooled and ground into a powder

(1) Based on the information given by the sponsor
(3) Unverifiable by the laboratory

More details (e.g. mounting and fixing) are available in the test report(s) in support of this classification (§2a).

2. TEST REPORTS AND EXAP REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

a) Test reports (and EXAP reports)

Name of the laboratory	Name of the sponsor	Test report ref. No. and test date	Test method and date
Warringtonfire, UK (NB 0833)	MyDek Limited	431262: 08/09/2020	EN ISO 1716:2018 (*)
WFRGENT nv Ghent, Belgium	MyDek Limited	21248H: 06/03/2023 21248I: 06/03/2023	EN ISO 1716:2018 (*)
Warringtonfire, UK (NB 0833)	MyDek Limited	421728 (Issue 2): 22 & 25/11/2019 421729 (Issue 2): 26/11/2019 422239 (Issue 2): 03/12/2019	EN 13823:2010+A1:2014
WFRGENT nv Ghent, Belgium	MyDek Limited	21248A rev.1: 03/06/2021 21248B rev.1: 03/06/2021 21248F: 25/08/2022 21248G: 30/08/2022	EN 13823:2020

(*) As the test procedure for EN ISO 1716 remained identical for versions 2010 & 2018 and no substantial technical changes were noticed in the most recent version 2018, results obtained with the 2018 version can also be considered valid for classification purposes (where only the 2010 version is mentioned).

b) Test results

Official test results used for the classification

Test method	Parameter	Number of tests	Results		Criteria for Class A2-s1, d0	
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters
EN 13823 (1)	FIGRA $_{0,2\ MJ}$ (W/s)	3	1	(-)	≤ 120	(-)
	FIGRA $_{0,4\ MJ}$ (W/s)		1	(-)	(-)	(-)
	$LFS_{<edge}$		(-)	Yes	(-)	Yes
	THR_{600s} (MJ)		0,6	(-)	≤7,5	(-)
	SMOGRA (m²/s²)		0	(-)	≤30	(-)
	TSP_{600s} (m²)		22	(-)	≤50	(-)
	Flaming droplets/particles					
	f < 10 s		(-)	No	(-)	No
	f > 10 s		(-)	No	(-)	No
(1) Based on the results obtained in test report No. 421728 (Issue 2) – Vista, 80 microns red colour						
EN ISO 1716	PCS (MJ/kg) (2)	0	0	(-)	≤3,0	(-)
	PCS (MJ/m²) (3)	3	3,5	(-)	≤4,0	(-)
	PCS (MJ/kg) (4)	0	0,4	(-)	≤3,0	(-)

(2) For homogeneous products and substantial components of non-homogeneous products – aluminium (not required to be tested and value to be set to 0 for calculations as per the requirements of EN ISO 1716: 2018)
(3) For any external non-substantial component of non-homogeneous products - Coating (black colour)
Based on the results obtained in test report No. 21248H and the following calculation:
21,7 MJ/kg x 0,162 kg/m² = 3,5 MJ/m²
(4) For the product as a whole - Based on the following calculations:
Coating: 21,7 MJ/kg x 0.162 kg/m² = 3,5 MJ/m²
Aluminium: 0 MJ/kg x 8,66 kg/m² = 0 MJ/m²
***PCS (Total product) =** 3,5 MJ/m²*
PCS (Product as a whole) = 3,5 MJ/m² / 8,66 kg/m² = 0,4 MJ/kg

(-) Not applicable.

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Comparative test results used for the worst case determinations

EN 13823 *Test report No. 21248A, 21248B, 21248F, 21248G, 421728, 422239, 421729*	FIGRA $_{0,2\ MJ}$ (W/s)	FIGRA $_{0,4\ MJ}$ (W/s)	THR_{600S} (MJ)	SMOGRA (m^2/s^2)	TSP_{600S} (m^2)
Sample 1: 421728 (Issue 2), Vista, 80 microns red colour *	4	4	1,0	0	21
Sample 2: 422239 (Issue 2), Vista, 80 microns white colour	0	0	0,2	0	29
Sample 3: 421729 (Issue 2), Vista 80 microns black colour	0	0	0,1	0	25
Sample 4: 21248A rev.1, Delta20, 80 microns red colour	0	0	0,0	0	22
Sample 5: 21248B rev.1, Vista, 120 microns red colour	0	0	0,0	0	26
Sample 6: 21248F, Innova, 120 microns red colour	0	0	0,4	0	29
Sample 7: 21248G, Delta30, 120 microns red colour	0	0	0,4	0	7

(*) The results of this sample were re-used in the official test report No. 421728 (Issue 2) (as sample 1).

EN ISO 1716 *Test report No. 431262, 21248I, 21248H*	PCS (MJ/kg)	Used amount (kg/m^2)	PCS (MJ/m^2) in relation to the product as a whole
White colour coating - 431262	17,5	0.1872	3,3
Red colour coating – 21248I	20,8	0.1656	3,4
Black colour coating – 21248H	21,6	0.162	3,5

(*) The results of this sample were re-used in the official test report Nos. 21248I & 21248H (as sample 1).

3. CLASSIFICATION AND FIELD OF APPLICATION

a) Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018.

b) Classification

The product ***Vista, Delta20, Delta30, Innova*** in relation to its reaction to fire behavior is classified as:

Fire behavior	Smoke production	Flaming droplets
A2	**s1**	**d0**

c) Field of application

This classification for the product as described in §1b, is valid for the following end use applications:

- Substrate: Euroclass A2-s1, d0 or better with a nominal thickness of at least 9 mm and a nominal density of at least 652.5 kg/m³ (excluding paper faced gypsum plasterboard)
- Airgap: a void with a width of 80 mm or greater
- Fixing: Mounted on aluminium rails
- Joints: Vertical joints permitted

This classification is valid for the following product parameters:

- Coating colour: All colours with PCS ≤3,5MJ/m^2
- Coating reference: Interpon D2525 (D2000 Series)
- Nominal coating thickness : 80-120 microns
- Nominal coating application rate: 0.108-0.1872kg/m^2 (varies with s.g. of colour at each thickness)
- Specific gravity: 1.35-1.56g/cm^3 (varies only with colour as described)
- Permitted aluminum profiles: Delta20, Delta30, Innova, Vista
- Nominal profile height (aluminium): 30mm (Delta30), 20mm (Delta20, Innnova & Vista)
- Nominal aluminium thickness (face): 2.5mm (Delta20, Delta30, Vista), 1.5mm (Innova)
- Nominal aluminium profile weight per unit area: 13.866kg/m^2 (Delta30), 12.47kg/m^2 (Delta20), 8.66kg/m^2 (Innova), 11.77kg/m^2 (Vista)

- Use of flame retardants: None
- Product composition: No variation allowed
- Product construction: No variation allowed

4. RESTRICTIONS

At the time the standard EN 13501-1:2018 was published, no decision was made concerning the duration of validity of a classification report.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonized standards and technical specifications.

5. WARNING

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

According to the information mentioned by the sponsor on the technical information sheet there was no product standard for CE marking available at the time the classification report for the tested material/product was drafted.
When such a product standard is published, this report may be submitted again to the laboratory to evaluate the adequacy of the report for CE marking.

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