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REACTION TO FIRE - CLASSIFICATION REPORT No EUI-23-000242

1. INTRODUCTION

This classification report defines the classification assigned to Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium in accordance with the procedures given in BS EN 13501-1:2018.

REACTION TO FIRE CLASSIFICATION IN ACCORDANCE WITH BS EN 13501-1:2018

Sponsor :	Anhui HJ Tech Co., Ltd #568 South Huizhou Rd Chuzhou City Anhui Province 239065 China
Product name:	Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium
Classification report No.:	EUI-23-000242
Issue number:	1
Date of issue:	1 August, 2023

Document Tracking :

Revision Index.	*Modification*
0	Original document

2. DESCRIPTION OF THE PRODUCT

2.1. GENERAL

The product, Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium, is defined as a Pre-coated aluminium panel

2.2. PRODUCT DESCRIPTION

The product, Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium, is described below or is described in the reports provided in support of classification listed in 3.1.

Product description		
Trade mark	Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium	
Composition	PVDF Topcoat (Front Side)	Reference: PVDF Paint Supplier: Information provided and kept within the project folder at the laboratory facility but withheld on the report for commercially sensitive reasons Thickness: 40 microns Mass per unit area: 0.06 kg/m^2 Colour: Wide range of colour Relative to the final product: 0.73%
	Polyester Front Primer Coating	Reference: Polyester Primer Paint Supplier: Information provided and kept within the project folder at the laboratory facility but withheld on the report for commercially sensitive reasons Thickness: 6 microns Mass per unit area: 0.008 kg/m^2 Colour: White Relative to the final product: 0.1%
	Flat Aluminum Coil sheet	Supplier: Information provided and kept within the project folder at the laboratory facility but withheld on the report for commercially sensitive reasons Thickness: 3 mm Mass per unit area: 8.1 kg/m^2 Relative to the final product: 99%

	Polyester Back Coating (Back Side)	Reference: Polyester Back Paint Supplier: Information provided and kept within the project folder at the laboratory facility but withheld on the report for commercially sensitive reasons Thickness: 12 microns Mass per unit area: 0.014 kg/m^2 Colour: Grey Relative to the final product: 0.17%
Thickness	3 mm	
Mass per unit area	8.18 kg/m^2	
Density	2727 kg/m^3	
Colour	Various	
Fire retardant	No	

3. REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1. REPORTS

Name of Laboratory	Name of sponsor	Report ref. no	Test method and date field of application rules and date
EFECTIS UK/Ireland	Anhui HJ Tech Co., Ltd	EUI-23-SBI-000242	BS EN 13823:2020+A1:2022
EFECTIS UK/Ireland	Anhui HJ Tech Co., Ltd	EUI-23-HC-000242	BS EN ISO 1716 :2018

3.2. RESULTS

Test method and test number	Parameter	No. Tests a)	Results			
			Continuous parameter - mean (m)			Compliance with parameters
BS EN 13823:2020+A1:2022 EUI-23-SBI-000242	FIGRA $_{0,2\ MJ}$ (W/s)	4	6.70			-
	FIGRA $_{0,4\ MJ}$ (W/s)		6.70			-
	THR $_{600\ s}$ (MJ)		0.63			-
	LFS		-			Compliant
	SMOGRA		0.57			-
	TSP $_{600s}$ (m^2)		12.02			-
	Flaming droplets or particles		-			Compliant
BS EN ISO 1716 :2018 EUI-23-HC-000242	PCS (MJ/kg) GCV (MJ/kg)	3	Topcoat PVDF White colour	15.82 (MJ/kg)	0.95 (MJ/m^2)	-
		3	Topcoat PVDF red colour	14.95 (MJ/kg)	0.90 (MJ/m^2)	-
		3	Topcoat PVDF black colour	15.36 (MJ/kg)	0.92 (MJ/m^2)	-
		3	Polyester primer coating	13.91 (MJ/kg)	0.11 (MJ/m^2)	-
		3	Polyester coating	16.48 (MJ/kg)	0.23 (MJ/m^2)	-
		-	Aluminium* (Not tested)	0*	0*	-
BS EN ISO 1182 :2020	-	-	Aluminium sheet (Not tested)**			-

a) Not for extended application

(-) means not applicable

* Metallic components shall not be tested. Their gross heat of combustion shall be deemed to be zero according to BS EN ISO 1716:2018

** This component is classified as reaction to fire class A1 without testing according to Commission Decision 96/603/ES as amended Commission Decision 2000/605/ES and 2003/424/ES.

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. REFERENCE OF CLASSIFICATION

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

4.2. CLASSIFICATION

The product, Futural also known as HJ Tech PVDF Pre-coated Solid Aluminium, in relation to its reaction to fire behaviour is classified:
A1

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour
A1

i.e. A1

Reaction to fire classification	A1

4.3. FIELD OF APPLICATION

This classification is valid for the following product parameters and end-use applications:

Thickness of Aluminium	Valid for thickness of 3 mm and above
Application rate of Topcoat	Valid for Maximum Mass per unit area of 0.06 kg/m^2
Application rate of Primer	Valid for Maximum Mass per unit area of 0.008 kg/m^2
Application rate of Back Coat	Valid for Maximum Mass per unit area of 0.014 kg/m^2
Density	Valid for the density of 2727 kg/m^3
Type of product/ facings	Valid for tested type of product only (same formulation)
Asymmetry	Valid for fire on either side
Colour	Valid for all colours
Substrate	Valid for any end use wood based substrates and also any end use substrate of classes A1 and A2-s1,d0 with a density of at least 337.5 kg/m^3
Air gaps / cavities	Valid for at least 40 mm air gaps / cavities between the panel and the substrate
Size and positioning of the test specimen	Valid for all product sizes.
Joints	Valid for horizontal and vertical joints

5. LIMITATIONS

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

SIGNED

Vitor Oliveira
Project Leader

APPROVED

Damien Flammier
Technical Manager