

REACTION TO FIRE - CLASSIFICATION REPORT Nr. EUI-24-000543A

1. INTRODUCTION

This classification report defines the classification assigned to Futural 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: | FUTURAL (UK) LTD 128 City Road EC1V 2NX London United Kingdom |
| Prepared by: | EFFECTIS UK/Ireland Limited Shore Road Jordanstown Co Antrim - BT37 0QB United Kingdom |
| Product name: | Futural |
| Classification report No.: | EUI-24-000543A |
| Issue number: | 1 |
| Date of issue: | 26 th September 2024 |

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

2. DOCUMENT TRACKING

| Revision Index. | Modification |
|-----------------|-------------------|
| 0 | Original document |

3. DESCRIPTION OF THE PRODUCT

3.1. GENERAL

The product, Futural, is defined as is defined as a pre-coated aluminium panel.

3.2. PRODUCT DESCRIPTION

The product, Futural, is described below, or is described in the reports provided in support of classification listed in §4.1.

| Product description | | | | | | | |
|--------------------------------|---|--|--|--------------------------------|--|---------------------------|--|
| Trademark | Futural | | | | | | |
| Manufacturer / supplier | Information provided and kept within the project folder at the laboratory facility but withheld on the report for commercially sensitive reasons. | | | | | | |
| Composition | <table border="1"> <tr> <td>PVDF Topcoat (Front Side)</td> <td> 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/m² Colour: Wide range of colour Relative to the final product: 0.73% </td> </tr> <tr> <td>Polyester Front Primer Coating</td> <td> 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/m² Colour: White Relative to the final product: 0.1% </td> </tr> <tr> <td>Flat Aluminium Coil sheet</td> <td> 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/m² Relative to the final product: 99% </td> </tr> </table> | 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 Aluminium 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% |
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| Flat Aluminium 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 | |

4. REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

4.1. REPORTS

| Name of Laboratory | Name of sponsor of the classification | Report ref. no | Test method and date field of application rules and date |
|---------------------|---------------------------------------|-------------------|--|
| EFFECTIS UK/Ireland | FUTURAL (UK) LTD | EUI-23-SBI-000242 | BS EN 13823:2020+A1:2022 |
| EFFECTIS UK/Ireland | FUTURAL (UK) LTD | EUI-23-HC-000242 | BS EN ISO 1716 :2018 |

4.2. RESULTS

| Test method and test number | Parameter | No. Tests ^{a)} | Results | | | |
|--|---------------------------------------|-------------------------|---------------------------------|---------------|----------------------------|---|
| | | | Continuous parameter - mean (m) | | Compliance with parameters | |
| BS EN 13823:2020 +A1:2022 | FIGRA _{0.2 MJ} (W/s) | 4 | 7 | | - | |
| | FIGRA _{0.4 MJ} (W/s) | | 7 | | - | |
| | THR _{600 s} (MJ) | | 0.6 | | - | |
| LFS | - | | Compliant | | | |
| EUI-23-SBI-000242 | SMOGRA | - | 1 | | - | |
| | TSP _{600s} (m ²) | | 12 | | - | |
| | 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

5. CLASSIFICATION AND FIELD OF APPLICATION

5.1. REFERENCE OF CLASSIFICATION

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

5.2. CLASSIFICATION

The product, product name Futural, 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 |
|--|-----------|

5.3. FIELD OF APPLICATION

According to the standard BS EN 13501-1:2018, 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 |

6. LIMITATIONS

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

SIGNED



Vitor Oliveira
Project leader

APPROVED



Maurice McKee
Lab Manager