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#### Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

# **Notified Body No:**

0833

#### **Product Name:**

"FCD300E, FCP250E, FC170E, and FC150E Fortex Cladding"

#### **Report No:**

313057

**Issue No:** 

1

#### Prepared for:

Freefoam Plastics Limited, Central Commercial Park, Centre Park Road, Cork, Ireland

#### Date:

28<sup>th</sup> May 2012

#### 1. Introduction

This classification report defines the classification assigned to "FCD300E, FCP250E, FC170E, and FC150E Fortex Cladding", PVC cladding panels, in accordance with the procedures given in EN 13501-1:2007.

### 2. Details of classified product

#### 2.1 General

The products, "FCD300E, FCP250E, FC170E, and FC150E Fortex Cladding", PVC cladding panels are defined as unplasticized poly(vinyl chloride) (PVC-U) profiles and cellular unplasticized poly(vinyl chloride) (PVC-UE) profiles for interior and exterior wall and ceiling finishes as defined in EN 13245:2008 Incorporating corrigenda November 2009 and August 2010.

#### 2.2 Product description

The products, "FCD300E, FCP250E, FC170E, and FC150E Fortex Cladding", PVC cladding panels, are fully described below and in the test reports provided in support of classification listed in Clause 3.1.

| C   -   -   -                              |                         |  |  |  |  |  |
|--|-------------------------|--|--|--|--|--|
| General description                        |                         | A composite panel consisting of shiplap PVC      |  |  |  |  |
|  |                         | cladding mechanically fixed to a timber frame.   |  |  |  |  |
| Trade name/ product reference              |                         | "FCD300E, FCP250E, FC170E, and FC150E Fortex     |  |  |  |  |
|  |                         | Cladding"  |  |  |  |  |
| Thickness of cladding                      |                         | 5 – 8 mm (stated by sponsor)                     |  |  |  |  |
| Density of cladding                        |                         | 400-550kg/m <sup>3</sup> (stated by sponsor)     |  |  |  |  |
| Decorative facing                          | Product reference       | "Freefoam PVC Skin"                              |  |  |  |  |
|  | Generic type            | PVCu (Unplasticised Polyvinyl Chloride)          |  |  |  |  |
|  | Name of manufacturer    | Freefoam Plastics Limited                        |  |  |  |  |
|  | Thickness               | 0.6mm  |  |  |  |  |
|  | Flame retardant details | See Note 1                                       |  |  |  |  |
| Core                                       | Product reference       | "PVC Cellular Material"                          |  |  |  |  |
|  | Generic type            | PVCuE  |  |  |  |  |
|  | Thickness               | 4.4 – 7.4 mm                                     |  |  |  |  |
|  | Name of manufacturer    | Freefoam Plastics Limited                        |  |  |  |  |
|  | Flame retardant details | See Note 1                                       |  |  |  |  |
| Timber frame                               | Generic type            | Softwood timber                                  |  |  |  |  |
| rimber irame                               | Dimensions              | 40mm x 40mm                                      |  |  |  |  |
| Mounting and fixing details                |                         | The PVC cladding panels were mechanically fixed  |  |  |  |  |
|  |                         | to a timber frame and a calcium silicate backing |  |  |  |  |
|  |                         | board was butted up against the reverse face of  |  |  |  |  |
|  |                         | the timber.                                      |  |  |  |  |
| Brief description of manufacturing process |                         | Standard extrusion, co-extrusion and embossing   |  |  |  |  |

Note 1: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the product.

# 3. Test reports/extended application reports & test results in support of classification

# 3.1 Test reports

| Name of<br>Laboratory   | Name of sponsor              | Test reports/extended application report Nos.     | Test method    |
|-------------------------|------------------------------|---|----------------|
| Exova<br>Warringtonfire | Freefoam<br>Plastics Limited | WFR 316410, WFR 316408,<br>WFR 316409, WFR 316411 | EN 13823       |
| Exova<br>Warringtonfire | Freefoam<br>Plastics Limited | WFR 312340, WFR 317738                            | EN ISO 11925-2 |
| Exova<br>Warringtonfire | Freefoam<br>Plastics Limited | WFR 313058  | EN/TS 15117    |

#### 3.2 Test results

| Test method &      |  | No. tests | Results                               |                       |
|--------------------|--|-----------|---------------------------------------|-----------------------|
| test number        | Parameter                              |           | Continuous<br>parameter -<br>mean (m) | Compliance parameters |
|                    |  |           |                                       |                       |
| EN 13823           | Figra <sub>0.4 MJ</sub> (W/s)          |           | 493                                   | Compliant             |
|                    | THR <sub>600 s</sub> (MJ)              |           | 34.2                                  | Compliant             |
|                    | Smogra (m²/s²)                         | 5         | 351                                   | Compliant             |
|                    | TSP <sub>600 s</sub> (m <sup>2</sup> ) |           | 1505                                  | Compliant             |
|                    | LFS (y/n)                              |           | N                                     | Compliant             |
|                    | Flaming droplets (y/n)                 |           | Υ                                     | Compliant             |
|                    | <10 s (y/n)<br>>10 s (y/n)             |           | Y                                     |                       |
| EN ISO 11925-2     |  |           |                                       |                       |
| 30 s surface       | Flame spread (mm)                      | 6         | 45                                    | Compliant             |
| exposure           | Flaming droplets (y/n)                 |           | none                                  | Compliant             |
| 30 s edge exposure | Flame spread (mm)                      | 6         | 36                                    | Compliant             |
|                    | Flaming droplets (y/n)                 |           | none                                  | Compliant             |

#### 4. Classification and field of application

#### 4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2007

#### 4.2 Classification

The products, "FCD300E, FCP250E, FC170E, and FC150E Fortex Cladding", shiplap PVC cladding panels, in relation to its reaction to fire behaviour are classified:

# Reaction to fire classification: D-s3, d2/AHM

#### 4.3 Field of application

This classification is valid for the following end use applications:

- i) Wall, ceiling and facade applications
- ii) Used over any substrate of class A2 or better with density of 870 kg/m³ or higher, with an air gap, mechanically fixed onto a timber (or metal) support frame.

This classification is also valid for the following product parameters:

Colour any colour

Surface structure stippled finish, or wood grain finish

Board width 150 mm or more
Joint geometry shiplap or feather edge

Product thickness 5 – 8 mm

Product composition No variation allowed

Within these product parameters will fall the products designated FC150E Fortex Cladding, FCD300E Fortex Cladding, FC170E Fortex Cladding, and FCP250E Fortex Cladding

"The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and CE marking under the Construction Products Directive. The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate. The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested."

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**SIGNED** 

**APPROVED** 

Frans Paap

Certification Engineer

**Janet Murrell** 

Technical Manager on behalf of **Exova Warringtonfire** 

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