

# classification report

**Title:**

CLASSIFICATION OF  
REACTION TO FIRE  
PERFORMANCE  
IN ACCORDANCE WITH  
EN 13501-1: 2002

**Notified Body No:**

0833

**Product Name:**

Glasbord FX-FM

**Report No:**

153378

**Issue No:**

1

**Prepared for:**

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**Date:**

12<sup>th</sup> April 2006

## 1. Introduction

This classification report defines the classification assigned to 'Glasbord FX-FM', a flame retardant grade, glass reinforced plastic (GRP) sheet, having one embossed (test face) and one smooth (reverse face), in accordance with the procedures given in EN 13501-1:2002.

## 2. Details of classified product

### 2.1 General

The product 'Glasbord FX-FM', a flame retardant grade, glass reinforced plastic (GRP) sheet, having one embossed (test face) and one smooth (reverse face), is defined as being suitable for wall or ceiling applications.

### 2.2 Product description

The product, 'Glasbord FX-FM', a flame retardant grade, glass reinforced plastic (GRP) sheet, having one embossed (test face) and one smooth (reverse face), is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

|                                           |                                            |                                                                                                                                                                                                                                |                                                                                                                       |
|-------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| General description                       |                                            | Flame retardant grade glass reinforced plastic (GRP) sheet having one embossed (test face) and one smooth (reverse face), bonded to a paper faced plasterboard substrate utilising "Titebond Heavy Duty Construction Adhesive" |                                                                                                                       |
| Product reference of GRP sheet            |                                            | "Glasbord FX-FM"                                                                                                                                                                                                               |                                                                                                                       |
| Name of manufacturer of GRP sheet         |                                            | Crane Composites                                                                                                                                                                                                               |                                                                                                                       |
| Colour reference of GRP sheet             |                                            | "White"                                                                                                                                                                                                                        |                                                                                                                       |
| Overall thickness of GRP sheet            |                                            | 2.3mm                                                                                                                                                                                                                          |                                                                                                                       |
| Overall weight per unit area of GRP sheet |                                            | 3.6 kg/m <sup>2</sup>                                                                                                                                                                                                          |                                                                                                                       |
| Embossment pattern reference of GRP sheet |                                            | "Cracked ice"                                                                                                                                                                                                                  |                                                                                                                       |
| GRP Sheet                                 | Resin                                      | Product reference                                                                                                                                                                                                              | "Thermoset resin"                                                                                                     |
|                                           |                                            | Generic type                                                                                                                                                                                                                   | Flame retardant grade brominated polyester resin                                                                      |
|                                           |                                            | Name of manufacturer                                                                                                                                                                                                           | Reichhold Chemical                                                                                                    |
|                                           |                                            | Flame retardant details                                                                                                                                                                                                        | "Dion 6131-MSB". The sponsor was unable to provide any further information in relation to the flame retardant details |
|                                           | Glass reinforcement                        | Product reference                                                                                                                                                                                                              | "495-D1-106 Continuous roving"                                                                                        |
|                                           |                                            | Generic Type                                                                                                                                                                                                                   | Randomly dispersed chopped glass                                                                                      |
|                                           |                                            | Weight per unit area                                                                                                                                                                                                           | 0.53 kg/m <sup>2</sup>                                                                                                |
|                                           |                                            | Name of manufacturer                                                                                                                                                                                                           | Owens Corning Fiberglass                                                                                              |
|                                           | Percentage glass reinforcement (by weight) |                                                                                                                                                                                                                                | 17%                                                                                                                   |
|                                           | Resin to glass ratio (by weight)           |                                                                                                                                                                                                                                | 1.8 to 1                                                                                                              |



|              |                                            |                                                                                                                                                                                                                                                                            |
|--------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | Brief description of manufacturing process | The product is manufactured on a continuous machine. The liquid resin and chopped fibreglass is cast between an embossed film and a smooth film. The resin and glass goes through a series of heated ovens that cure or harden the liquid resin creating a finished panel. |
| Adhesive     | Product reference                          | "Titebond® Heavy Duty"                                                                                                                                                                                                                                                     |
|              | Generic type                               | Synthetic elastomeric polymer (medium-viscosity mastic)                                                                                                                                                                                                                    |
|              | Name of manufacturer                       | Franklin International                                                                                                                                                                                                                                                     |
|              | Application rate                           | "Spot" applied at regular intervals over the surface of the substrate                                                                                                                                                                                                      |
|              | Application method                         | Mastic gun                                                                                                                                                                                                                                                                 |
|              | Flame retardant details                    | The supplier was unable to provide Warringtonfire with these details                                                                                                                                                                                                       |
| Joint detail |                                            | Joint details were not included in any of the specimens tested                                                                                                                                                                                                             |
| Substrate    |                                            | 12.5mm thick paper faced plasterboard having a density of 800kg/m <sup>3</sup>                                                                                                                                                                                             |

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

#### 3.1 Test reports/extended application reports

| Name of Laboratory | Name of sponsor | Test reports/extended application report Nos. | Test method / extended application rules & date |
|--------------------|-----------------|-----------------------------------------------|-------------------------------------------------|
| warringtonfire     | Kemlite Limited | WF 147560                                     | EN 13823                                        |
| warringtonfire     | Kemlite Limited | WF 152917                                     | EN ISO 11925-2                                  |

#### 3.2 Test results

| Test method & test number                                   | Parameter                   | No. tests | Results                         |                       |
|-------------------------------------------------------------|-----------------------------|-----------|---------------------------------|-----------------------|
|                                                             |                             |           | Continuous parameter - mean (m) | Compliance parameters |
| EN ISO 11925-2<br>(15s exposure – surface of embossed face) | F <sub>s</sub>              | 6         | 0                               | Compliant             |
|                                                             | Flaming droplets/ particles |           | None                            | Compliant             |



|                                                           |                                |   |        |           |
|-----------------------------------------------------------|--------------------------------|---|--------|-----------|
| EN ISO 11925-2<br>(15s exposure – edge of embossed face)  | F <sub>s</sub>                 | 6 | 21     | Compliant |
|                                                           | Flaming droplets/<br>particles |   | None   | Compliant |
| EN ISO 11925-2<br>(15s exposure – edge of adhesive layer) | F <sub>s</sub>                 | 6 | 0      | Compliant |
|                                                           | Flaming droplets/<br>particles |   | None   | Compliant |
| EN 13823                                                  | FIGRA <sub>0.2MJ</sub>         | 3 | 72.05  | Compliant |
|                                                           | THR <sub>600s</sub>            |   | 4.61   | Compliant |
|                                                           | LFS                            |   | N      | Compliant |
|                                                           | SMOGRA                         |   | 34.05  | Compliant |
|                                                           | TSP <sub>600s</sub>            |   | 150.25 | Compliant |

#### 4. Classification and field of application

##### 4.1 Reference of classification

This classification has been carried out in accordance with clause 10 of EN 13501-1:2002

##### 4.2 Classification

The product, "Glasbord FX-FM", a flame retardant grade, glass reinforced plastic (GRP) sheet, having one embossed (test face) and one smooth (reverse face), in relation to its reaction to fire behaviour is classified:

**B**

The additional classification in relation to smoke production is:

**s2**

The additional classification in relation to flaming droplets / particles is:

**d0**

The format of the reaction to fire classification for construction products excluding floorings is:



| Fire Behaviour |   | Smoke Production |   |   |   | Flaming Droplets |  |
|----------------|---|------------------|---|---|---|------------------|--|
| B              | - | s                | 2 | , | d | 0                |  |

i.e. B – s2 , d0

**Reaction to fire classification: B – s2, d0**

**4.3 Field of application**

This classification is valid for the following end use applications:

- i) Wall or Ceiling Applications directly adhered to any substrate with a density equal to or greater than 800kg/m<sup>3</sup> with a minimum thickness of 6mm and a fire performance of A2 or better.
- ii) Bonded directly to the substrate utilising 'Titebond® Heavy Duty' adhesive.

This classification is also valid for the following product parameters:

|                              |                      |
|------------------------------|----------------------|
| Colour                       | No variation allowed |
| Product weight per unit area | No variation allowed |
| Product thickness            | No variation allowed |
| Product formulation          | No variation allowed |
| Adhesive                     | No variation allowed |

**SIGNED**

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**APPROVED**

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