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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:** 

"Lumex G"

**Report No:** 

WF 397682

Issue No:

1

# Prepared for:

Foamalite Limited Loch Gowna Co. Cavan Ireland

### Date:

21st March 2018



### 1. Introduction

This classification report defines the classification assigned to "Lumex G", a family of Polyethylene terephthalate sheet products, in line with the procedures given in EN 13501-1:2007+A1: 2009.

## 2. Details of classified product

### 2.1 General

The products, "Lumex G", a family of Polyethylene terephthalate sheet products, are defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

## 2.2 Product description

The products, "Lumex G", a family of Polyethylene terephthalate sheet products, are fully described below and in the test reports provided in support of classification listed in Clause 3.1.

| Generic type                |   | Polyethylene terephthalate   |  |  |  |
|-----------------------------|---|--|--|--|--|
| Product reference           |   | "Lumex G"  |  |  |  |
| Name of manufacturer        |   | Foamalite  |  |  |  |
| Thickness                   |   | 0.5mm to 10mm  |  |  |  |
| Density                     |   | 1.27g/cm <sup>3</sup> (stated by sponsor)                          |  |  |  |
|                             |   | 1.29g/cm <sup>3</sup> (determined by <b>Exova Warringtonfire</b> ) |  |  |  |
| Colour reference            |   | "Clear"  |  |  |  |
| Flame retardant details     |   | See Note 1 below   |  |  |  |
| Mounting and fixing details |   | The specimen was tested with the maximum depth                     |  |  |  |
|                             |   | airgap between the reverse face and the calcium                    |  |  |  |
|                             |   | silicate substrate (as specified in EN 13238)                      |  |  |  |
| Brief description of        | he throat of the cylinder on to the flights of a rotating                 |  |  |  |  |
| manufacturing               | screw and travels through a heated cylinder, during this process the      |  |  |  |  |
| process                     | material is compressed to remove any remaining moisture or volatiles and  |  |  |  |  |
|                             | mix the components The material is then filtered and pumped through       |  |  |  |  |
|                             | the rest of the melt pipes before passing through the feed-block and die. |  |  |  |  |
|                             | The cooled sheet is pulled down the line by a double set of rubber coated |  |  |  |  |
|                             | rolls and pushes it through the sizing saws.                              |  |  |  |  |
|                             | The required size of the sheet is achieved by the use of longitudinal     |  |  |  |  |
|                             | circular saws for edge trimming and a cross cut circular saw for the      |  |  |  |  |
|                             | required length.  |  |  |  |  |

**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/extended application reports

| Name of<br>Laboratory   | Name of sponsor      | Test reports/extended application report Nos. | Test method / extended application rules & date |
|-------------------------|----------------------|---|---|
| Exova warringtonfire    | Foamalite<br>Limited | WF 336438                                     | EN ISO 11925-2                                  |
| Exova<br>warringtonfire | Foamalite<br>Limited | WF 336436, WF 336437,<br>WF 396456            | EN 13823  |
| Exova<br>warringtonfire | Foamalite<br>Limited | WF 336544                                     | EN 13501  |
| Exova<br>warringtonfire | Foamalite<br>Limited | WF 336543, WF 389681                          | EN/TS 15117                                     |

## 3.2 Test results

| Test<br>method &<br>test<br>number |                        |                                |                     | Results                               |                       |  |
|------------------------------------|------------------------|--------------------------------|---------------------|---------------------------------------|-----------------------|--|
|                                    |                        | Parameter                      | No. tests           | Continuous<br>parameter -<br>mean (m) | Compliance parameters |  |
| 5-2                                | 30s                    | $F_s$                          |                     | Nil                                   | Compliant             |  |
| EN ISO 11925-2                     | exposure<br>- surface  | Flaming droplets/<br>particles | 6                   | None                                  | Compliant             |  |
| 0                                  | 30s                    | F <sub>s</sub>                 |                     | 35.8                                  | Compliant             |  |
| EN IS                              | exposure<br>– edge     | Flaming droplets/<br>particles | 6                   | None                                  | Compliant             |  |
|                                    |                        |                                | Formal test average | 64.61                                 |                       |  |
|                                    | FIGRA <sub>0.2MJ</sub> | Indicative test 1              | 0.00                | Compliant                             |                       |  |
|                                    |                        |                                | Indicative test 2   | 0.00                                  |                       |  |
|                                    |                        | FIGRA <sub>0.4MJ</sub>         | Formal test average | 64.61                                 | Compliant             |  |
|                                    |                        |                                | Indicative test 1   | 0.00                                  |                       |  |
|                                    |                        |                                | Indicative test 2   | 0.00                                  |                       |  |
|                                    |                        |                                | Formal test average | 2.21                                  |                       |  |
|                                    |                        | THR <sub>600s</sub>            | Indicative test 1   | 0.19                                  | Compliant             |  |
| EN 13823                           |                        |                                | Indicative test 2   | 0.42                                  |                       |  |
| '                                  | 13023                  |                                | Formal test average | None                                  | _                     |  |
|                                    |                        | LFS                            | Indicative test 1   | None                                  | Compliant             |  |
|                                    |                        |                                | Indicative test 2   | None                                  | ;                     |  |
|                                    |                        |                                | Formal test average | 0.00                                  |                       |  |
|                                    |                        | SMOGRA                         | Indicative test 1   | 0.00                                  | Compliant             |  |
|                                    |                        |                                | Indicative test 2   | 0.00                                  |                       |  |
|                                    |                        |                                | Formal test average | 12.18                                 |                       |  |
|                                    |                        | TSP <sub>600s</sub>            | Indicative test 1   | 1.73                                  | Compliant             |  |
|                                    |                        |                                | Indicative test 2   | 14.32                                 |                       |  |

### 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+A1: 2009.

### 4.2 Classification

The products, "Lumex G", a family of Polyethylene terephthalate sheet products, in relation to their reaction to fire behaviour are classified:

В

The additional classification in relation to smoke production is:

**s1** 

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

d0

The format of the reaction to fire classification for construction applications, excluding flooring and linear pipe thermal insulation is:

| Fire Behaviour |   | Smoke Production |   |   | Flaming Droplets |   |
|----------------|---|------------------|---|---|------------------|---|
| В              | - | s                | 1 | 1 | d                | 0 |

i.e. B - s1, d0

# Reaction to fire classification: B - s1, d0

### 4.3 Field of application

This classification is valid for the following end use applications:

- i) Construction Applications used over any substrate with a density equal to or greater than 870kg/m³, having a minimum thickness of 6 mm and a fire performance of A2 or better (excluding paper faced gypsum plasterboard).
- ii) Construction applications mechanically installed without the presence of a substrate with an air gap.

This classification is also valid for the following product parameters:

Product thickness

Product weight per unit area

Product colour/pattern

Product composition

Product construction

O.5mm to 10mm

No variation allowed

No variation allowed

No variation allowed

**SIGNED** 

**APPROVED** 

**Matthew Dale** 

Senior Certification Engineer Technical Department **Janet Murrell** 

Technical Manager
Technical Department
on behalf of **Exova warringtonfire** 

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