Reaction to fire classification report

1 Introduction

This classification report defines the classification assigned to the product called “Politerm Blu” in accordance with the procedure given in EN 13501-1:2007.

2 Details of classified product

2.1 General

The product Politerm Blu is defined as a lightweight concrete product.

2.2 Product description

According to information provided by the client, the product has the following composition: Cellular concrete called “Politerm Blu” consisting of 95.2 % cement and 4.8 % expanded polystyrene (by weight). Nominal thickness 50 mm and nominal dry density 262.5 kg/m³.

3 Test reports & test results in support of classification

3.1 Test reports

This classification is based on the test reports listed below:

<table>
<thead>
<tr>
<th>Name of laboratory</th>
<th>Name of sponsor</th>
<th>Test report ref no</th>
<th>Accredited test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>Edilteco SPA</td>
<td>P805640B</td>
<td>EN 13823</td>
</tr>
<tr>
<td>SP</td>
<td>Edilteco SPA</td>
<td>P805640-01A</td>
<td>EN ISO 1716</td>
</tr>
</tbody>
</table>

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3.2 Test results

<table>
<thead>
<tr>
<th>Test method</th>
<th>Parameter</th>
<th>Number of tests</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 13823</td>
<td>$FIGNA_{0,2MJ}$ (W/s)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>$LFS &lt; edge$</td>
<td></td>
<td>Compliant</td>
</tr>
<tr>
<td></td>
<td>$THR_{400s}$ (MJ)</td>
<td>0.5</td>
<td>Compliant</td>
</tr>
<tr>
<td></td>
<td>$SMOGLA$, (m$^2$/s$^2$)</td>
<td>0</td>
<td>Compliant</td>
</tr>
<tr>
<td></td>
<td>$TSP_{600s}$ (m$^2$)</td>
<td>16</td>
<td>Compliant</td>
</tr>
<tr>
<td></td>
<td>Flaming droplets/particles</td>
<td>(-)</td>
<td>No flaming droplets/particles</td>
</tr>
</tbody>
</table>

EN ISO 1716

| PCS (MJ/kg)* (4) | 6 | 1.9 | Compliant |

(-): not applicable
* the product is homogeneous
(4): the parameter for the product as a whole

4 Classification and field of application

4.1 Reference and direct field of application

This classification has been carried out in accordance with clause 11 and 15 of EN 13501-1:2007.

4.2 Classification

The product called “Politerm Blu” in relation to its reaction to fire behaviour is classified:

A2

The additional classification in relation to smoke production is:

s1

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

d0

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

<table>
<thead>
<tr>
<th>Fire Behaviour</th>
<th>Smoke Production</th>
<th>Flaming Droplets</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Reaction to fire classification: $A2-s1,d0$
4.3 Field of application:

This classification is valid for the following product parameters:

Composition: 95.2 % cement and 4.8 % expanded polystyrene (by weight).

Nominal thickness: 50 mm

This classification is valid for the following end use conditions:

Substrates
- Wood based substrates at least 12 mm thick and any end use substrate of Euroclasses A1 or A2 at least 6 mm thick, having a density \( \geq \) 630 kg/m\(^3\).

The sample was delivered by the client. SP Fire Technology was not involved in the sampling procedure.

5 Limitations

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

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Fire Technology - Fire Dynamics

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