Reaction to fire classification report

1 Introduction

This classification report defines the classification assigned to the product Teknos FR Facade in accordance with the procedure given in EN 13501-1:2007.

This classification report replace SP classification report PX18030-2, dated February 15, 2012.

2 Details of classified product

2.1 General

The product, Teknos FR Facade is defined as a facade system consisting of spruce applied with a paint system consisting of a fire retarding primer, Teknosafe 2407 overlaid by a waterborne acrylic industrial system.

2.2 Product description

The product, Teknos FR Facade is fully described below.

According to the client: Facade system called “Teknos FR Facade” consisting of planed wooden panel boards (Spruce) factory spray-painted with 250 g/m² (wet) primer with fire retarding agent (Teknosafe 2407) and overlaid by a 60 g/m² (wet) waterborne acrylic industrial system (Teknos). The painted product has a nominal thickness of 18 mm.

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>Teknos A/S</td>
<td>PX05884-01</td>
<td>EN ISO 11925-2</td>
</tr>
<tr>
<td>SP</td>
<td>Teknos A/S</td>
<td>PX18030</td>
<td>EN 13823</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>
<th>Compliance with parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN ISO 11925-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edge/Surface flame attack</td>
<td>$F_{s} \leq 150$ mm</td>
<td>6</td>
<td>(-)</td>
<td>Compliant</td>
</tr>
<tr>
<td>30 s exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flaming droplets/ particles</td>
<td>Ignition of filter paper</td>
<td></td>
<td>(-)</td>
<td>No ignition of filter paper</td>
</tr>
<tr>
<td>EN 13823</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F_{IGRA_{0.2MJ}}$ (W/s)</td>
<td></td>
<td>67</td>
<td>Compliant</td>
<td></td>
</tr>
<tr>
<td>$LFS_{&lt; edge}$</td>
<td></td>
<td></td>
<td>Compliant</td>
<td></td>
</tr>
<tr>
<td>$THR_{400s}$ (MJ)</td>
<td></td>
<td>5.3</td>
<td>Compliant</td>
<td></td>
</tr>
<tr>
<td>$SMOGRA_{, (m^{2}/s^{3})}$</td>
<td></td>
<td>4.7</td>
<td>Compliant</td>
<td></td>
</tr>
<tr>
<td>$TSP_{900s}$ (m$^{2}$)</td>
<td></td>
<td>44</td>
<td>Compliant</td>
<td></td>
</tr>
<tr>
<td>Flaming droplets/ particles</td>
<td></td>
<td></td>
<td>(-)</td>
<td>No flaming droplets/ particles</td>
</tr>
</tbody>
</table>

(-): not applicable

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 “Teknos FR Facade” in relation to its reaction to fire behaviour is classified:

B

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>B</td>
<td>-</td>
<td>d</td>
</tr>
<tr>
<td>s</td>
<td>l</td>
<td>0</td>
</tr>
</tbody>
</table>

i.e. A1 to F (as applicable) – s1, 2 or 3 (as applicable), d0, 1 or 2 (as applicable)

Reaction to fire classification: B-s1,d0

4.3 Field of application:

This classification is valid for the following product parameters:

Planed wooden panel boards (Spruce).
- Nominal thickness: 18 mm.

Paint system consisting of the following layers, applied on spruce.
- Primer (Teknosafe 2407): nominal amount, 250 g/m² (wet)
- Coating (Teknos waterborne acrylic industrial system): nominal amount, 60 g/m² (wet)

This classification is valid for the following end use conditions:

Substrates
- Gypsum plasterboard (paper faced) and any end use substrate of Euroclasses A1 or A2 at least 12 mm thick, having a density ≥ 525 kg/m³.

Fixings
- Mechanically fixed.

Void
- System of wood battens creating a void.

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.

SP Technical Research Institute of Sweden
Fire Technology - Fire Dynamics

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