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

Sponsor: Greenlam Asia Pacific Pte Ltd
11 Sungei Kadut Crescent
Singapore 728683

Prepared by: TÜV SÜD PSB Pte Ltd

Product name: ‘Greenlam’ High Pressure Laminate Panel (12mm thick, density 17.34kg/m²)

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1. Introduction

This classification report defines the classification assigned to ‘Greenlam’ High Pressure Laminate Panel (12mm thick, density 17.34kg/m²) in accordance with the procedures given in BS EN 13501-1: 2007+A1:2009.

2. Details of classified product

2.1. End use application

This product ‘Greenlam’ High Pressure Laminate Panel (12mm thick, density 17.34kg/m²) is to be used in vertical & horizontal application, eg. Table top.

2.2. Product description

The product is fully described in the test reports in support of this classification listed in clause 3.1

3. Test reports and results in support of classification

3.1 Test reports

<table>
<thead>
<tr>
<th>Name of laboratory</th>
<th>Name of sponsor</th>
<th>Test report reference</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>TÜV SÜD PSB Pte Ltd</td>
<td>Greenlam Asia Pacific Pte Ltd</td>
<td>7191190037-MEC18/1-JV dated 19 Jul 2018</td>
<td>BS EN 13823: 2010</td>
</tr>
<tr>
<td>TÜV SÜD PSB Pte Ltd</td>
<td>Greenlam Asia Pacific Pte Ltd</td>
<td>7191190037-MEC18/2-JV dated 19 Jul 2018</td>
<td>BS EN ISO 11925-2: 2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test method</th>
<th>Parameters</th>
<th>Number of tests</th>
<th>Measured parameters (mean values)</th>
<th>Compliance parameters for B-s1, d0</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS EN 13823</td>
<td>FIGRA$_{0.2MJ}$ (W/s)</td>
<td>3</td>
<td>35.8</td>
<td>≤ 120</td>
</tr>
<tr>
<td></td>
<td>FIGRA$_{0.4MJ}$ (W/s)</td>
<td></td>
<td>26.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THR$_{600s}$ (MJ)</td>
<td></td>
<td>2.5</td>
<td>≤ 7.5</td>
</tr>
<tr>
<td></td>
<td>LFS to edge (Yes / No)</td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>SMOGRA (m$^2$/s$^2$)</td>
<td></td>
<td>0.0</td>
<td>≤ 30</td>
</tr>
<tr>
<td></td>
<td>TSP$_{600s}$ (m$^2$)</td>
<td></td>
<td>5.5</td>
<td>≤ 50</td>
</tr>
<tr>
<td></td>
<td>Flaming Droplets / Particles (sec)</td>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>BS EN ISO 11925-2: 2010</td>
<td>Vertical flame spread (surface) (mm)</td>
<td>6</td>
<td>30.0</td>
<td>F$_s$ ≤ 150mm within 60 sec</td>
</tr>
<tr>
<td></td>
<td>Vertical flame spread (edge) (mm)</td>
<td>6</td>
<td>20.0</td>
<td></td>
</tr>
</tbody>
</table>

**– denotes threshold not reached**
4. Classification and field of application

4.1. Reference of classification

This classification has been carried out in accordance with clause 11 of BS EN 13501-1: 2007 +A1: 2009.

4.2. Classification

The product, ‘Greenlam’ High Pressure Laminate Panel (12mm thick, density 17.34kg/m²), in relation to its reaction to fire behaviour meets the requirements to be classified as B.

The additional classification in relation to smoke production is: s1

The additional classification in relation to flaming droplets / particles is: d0

<table>
<thead>
<tr>
<th>Fire behaviour</th>
<th>Smoke production</th>
<th>Flaming droplets</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>- s 1</td>
<td>d 0</td>
</tr>
</tbody>
</table>

Therefore, the classification of ‘Greenlam’ High Pressure Laminate Panel (12mm thick, density 17.34kg/m²), in accordance with BS EN 13501-1: 2007 +A1:2009 is:

Reaction to fire classification: B-s1,d0
4.3. End use application and product parameter

The classification in clause 4.2 only applies to the product described in clause 2 of this report and is only valid for the following parameters and applications:

- Vertical & horizontal application, eg. Table top

5.0 Limitation

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

Vikneshwaran Jayaraman
Higher Associate Engineer

Leong Gene-Jhou
Engineer
(Fire Property)
Mechanical
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July 2011