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

Sponsor: Greenlam Industries Ltd
1501-1505, Narain Manzil
23, Barakhamba Road
New Delhi-110001, India

Prepared by: TÜV SÜD PSB Pte Ltd

Product name: ‘Greenlam Exterior Grade Compact Laminate’ Greenlam Clads™

This classification report consists of five pages and may only be used or reproduced in its entirety.
1. Introduction

This classification report defines the classification assigned to ‘Greenlam Exterior Grade Compact Laminate’ Greenlam Clads™, 6mm thick, in accordance with the procedures given in BS EN 13501-1: 2007+A1:2009.

2. Details of classified product

2.1. End use application

The product is to be used as panel for exterior wall claddings.

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 Industries Ltd</td>
<td>7191087533-MEC14/1-JV dated 06 Jan 2015</td>
<td>BS EN 13823: 2010</td>
</tr>
<tr>
<td>TÜV SÜD PSB Pte Ltd</td>
<td>Greenlam Industries Ltd</td>
<td>7191087533-MEC14/2-JV dated 06 Jan 2015</td>
<td>BS EN ISO 11925-2: 2010</td>
</tr>
</tbody>
</table>

3.2. Results

<table>
<thead>
<tr>
<th>Test method</th>
<th>Parameters</th>
<th>Number of tests</th>
<th>Test results</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>57.9</td>
<td>≤ 120</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIGRA_{0.4MJ} (W/s)</td>
<td>30.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>THR_{600s} (MJ)</td>
<td>1.7</td>
<td>≤ 7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LFS to edge (Yes / No)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMOGRA (m^2/s^2)</td>
<td>0.0</td>
<td>≤ 30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TSP_{600s} (m^2)</td>
<td>33.8</td>
<td>≤ 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flaming Droplets / Particles (sec)</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS EN ISO 11925-2</td>
<td>Vertical flame spread (mm)</td>
<td>6</td>
<td>35</td>
<td>F_s ≤ 150mm within 60 sec</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 11.8.1 of BS EN 13501-1: 2007 +A1: 2009.

4.2. Classification

The product, ‘Greenlam Exterior Grade Compact Laminate’ Greenlam Clads™, 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>-</td>
<td>d</td>
</tr>
<tr>
<td></td>
<td>s</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Therefore, the classification of ‘Greenlam Exterior Grade Compact Laminate’ Greenlam Clads™, 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:

- Panel for exterior wall claddings

5.0 Limitation

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

Leong Gene-Jhou
Senior Associate Engineer

Joseph Chng
Assistant Vice President
(Fire Property)
Mechanical Centre
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July 2011