

# BS 476: Part 3: 2004 test on Enviroboards 9mm Thatch Barrier Board

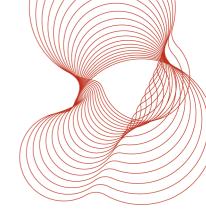
Prepared for: Enviroboards New Lodge Conholt Hampshire Gate Andover Hampshire SP11 9HF

17<sup>th</sup> November 2011

Test report number 275436



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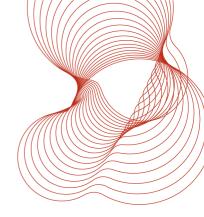
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# 1 Objective

To classify the sample specified in Section 2 according to its capacity to resist penetration by fire and its spread of flame characteristics, as shown by the external fire exposure roof test and criteria of BS 476: Part 3: 2004<sup>1</sup>.

# 2 Sample

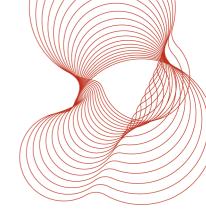
### 2.1 Traceability

The test samples were supplied by the client. BRE Global were not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market.

### 2.2 Description of sample and test format.

Unless otherwise stated all measurements are nominal.

| Test Sponsor  | Enviroboards New Lodge Conholt Hampshire Gate Andover Hampshire SP11 9HF  |
|---|---|
| Manufacturer of sample  | Not given   |
| Sample name/reference   | Enviroboards 9mm Thatch Barrier Board   |
| Sample description (as provided by test sponsor/manufacturer) | Board Type. Magnesium Oxide board incorporating 3 layers of reinforcing glass fibre mesh Joint Details. Silirub HT-N high temperature sealant.  |
| Description of sample (as received)                           | White board with a pale brown mesh visible on one face. One specimen included a butt joint, The panels were held in position on a timber frame. |
| Mean weight per unit area (kg/m²)                             | 6.8   |
| Mean thickness (mm)   | 8.6   |
| Sample receipt date   | 21 <sup>st</sup> and 31 <sup>st</sup> October 2011  |
| Test face   | Smooth white face   |
| Test format   | The test was carried out in the sloping position  |
| Date of test  | 10 <sup>th</sup> November 2011  |



# 3 Conditioning

The specimens were conditioned as required by the standard.

#### 4 Results

### 4.1 Preliminary ignition test

| Specimen reference | Joint | Flame spread<br>mm | Flame duration min:s | Penetration min:s |
|--------------------|-------|--------------------|----------------------|-------------------|
| E4194/1            | None  | 0                  | 0:00                 | None              |

### 4.2 Spread of flame test

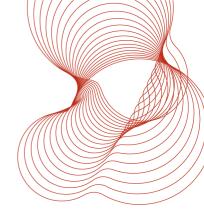
| Specimen reference | Joint | Flame spread<br>mm | Flame duration min:s |
|--------------------|-------|--------------------|----------------------|
| E4194/2            | None  | 0                  | 0:00                 |
| E4194/3            | None  | 0                  | 0:00                 |
| E4194/4            | None  | 0                  | 0:00                 |

The mean flame spread was 0mm

## 4.3 Penetration test

| Specimen reference | Joint | Penetration min:s | Observations |
|--------------------|-------|-------------------|--------------|
| E4209/2            | None  | None              | No ignition  |
| E4209/1            | Board | None              | No ignition  |
| E4209/3            | None  | None              | No ignition  |

4.4 No dripping of material occurred from the underside of any specimen tested, nor was any mechanical failure, or development of holes, observed.



# 5 Designation of specimens

- 5.1 The designation of specimens subject to conditions of external fire shall be according to both the time of penetration and the distance of spread of flame along their external surface.
- 5.2 Each category designation shall consist of two letters, e.g. AA, AC, BB, these being determined as follows:

#### First letters:

- A. Those specimens which have not been penetrated within 1 hour.
- B. Those specimens which are penetrated in not less than ½ hour.
- C. Those specimens which are penetrated in less than ½ hour.
- D. Those specimens which are penetrated in the preliminary flame ignition test.

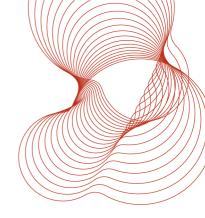
#### Second letters:

- A. Those specimens on which there is no spread of flame.
- B. Those specimens on which there is not more than 533mm spread of flame.
- C. Those specimens on which there is more than 533mm spread of flame.
- D. Those specimens which continue to burn for 5 minutes after the withdrawal of the test flame or spread more than 381mm across the region of burning in the preliminary test.
- 5.3 Attention shall be drawn to dripping from the underside of the specimen, any mechanical failures, and any development of holes, by adding a suffix 'X' to the designation to denote that one or more of these took place during the test.
- When it is required to indicate test results obtained on the sample by designation, the following method shall be used:

The designation letter for penetration shall be given followed by that for spread of flame and preceded by the letters EXT.F. or EXT.S. according to whether the flat or inclined test has been made and when necessary the suffix 'X' shall be added. Thus, for example:

EXT.F.AA; EXT.F.ACX;

EXT.S.BA; EXT.S.CCX.



#### 6 Conclusion

A sample as described in this report, when tested in accordance with BS 476: Part 3: 2004<sup>1</sup>, achieved the designation of EXT.S.AA.

## 7 Validity

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over 5 years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

#### 8 Reference

Fire tests on building materials and structures. Part 3. Classification and method of test for external fire exposure to roofs. British Standard 476: Part 3: 2004. British Standards Institution, London, 2004.

========REPORT ENDS=======