

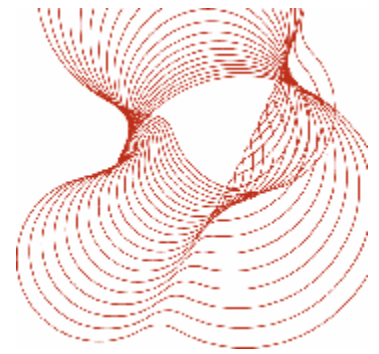


bre

**Test using the
methodology of BS 476:
Part 3: 2004 test on
Viridian Solar panel V30**

Prepared for:
Viridian Concepts Limited
Brook Lane
Bassingbourn
Cambridgeshire
SG8 5NT

Test report number 229034



Prepared on behalf of BRE testing

Name S M Warbus

Position Senior Consultant

Signature

Approved on behalf of BRE Testing

Name S Howard

Position Principal Consultant

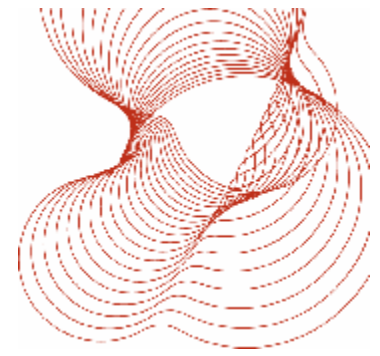
Date 27/01/2007

Signature

BRE Testing
BRE
Garston
WD25 9XX
T + 44 (0) 1923 664100
F + 44 (0) 1923 664910
E enquiries@bre-certification.co.uk
www.bre.co.uk

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1 Objective

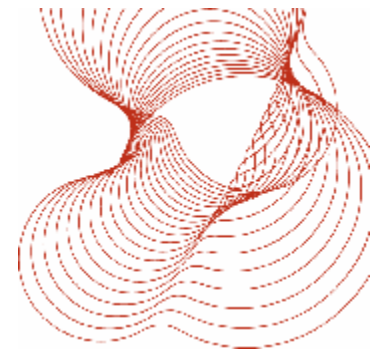
To test the sample specified in Section 2 for spread of flame and penetration performance using the methodology of BS 476: Part 3: 2004.

2 Sample

The test samples were supplied by the client. BRE 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.

Unless otherwise stated all measurements are nominal.

Test Sponsor	Viridian Concepts Limited
Manufacturer of sample	Not given
Sample name/reference	Viridian Solar Panel V30
Sample description (as provided by test sponsor/manufacturer)	Viridian Solar Panel V30, nominal area 3.0m ² Brackets, clipped to the panel and screwed to the roof battens, Pre-painted pressed aluminium flashing kit. Lead apron. Further details of the panel and flashings are given in annex 1
Description of sample (as received)	Solar panel, overall size 1170mm x 2900mm x 87mm deep, comprising a metal tray, a glass upper face, and a rear foam insulation panel 40mm thick Coated metal flashings Timber roof section Roofing tiles
Sample receipt date	22 June 2006
Test format	The Solar panels were mounted on a timber roof section, fitted over the test specimen holder. The flashings were fitted to the panel and roof tiles positioned around the structure. (see plate 1)
Test position	The specimens were tested in the sloping position
Date of test	24 July 2006



3 Conditioning

The specimens were conditioned as required by the standard.

4 Results

4.1 Preliminary ignition test

Specimen reference	Flame spread mm	Flame duration min:s	Penetration min:s
1	0	0:00	None

4.2 Spread of flame test

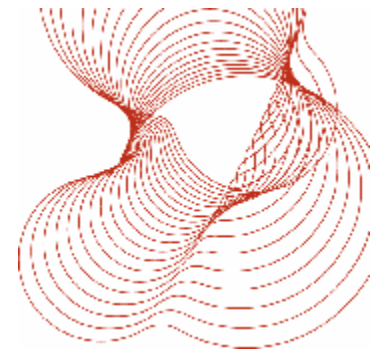
Specimen reference	Furnace position	Flame position	Flame spread mm	Flame duration min:s
2	Central	Centre of panel	0	0:00
3	Over lower section of panel	On bottom flange	0	0:00
4	Over side of panel	On side flange	0	0:00

The mean flame spread was 0mm

4.3 Penetration test

Specimen reference	Furnace position	Penetration min:s	Observations
5	Over side of panel	None	
6	Central	None	
7	Over lower section of panel	None	

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 Conclusions

A sample as described in this report, was tested in when tested for spread of flame and penetration performance based on BS 476 : Part 3 : 2004,.

There was no spread of flame on any of the specimens tested.

There was no penetration on any of the specimens tested.

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.

6 Reference

- 1 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.

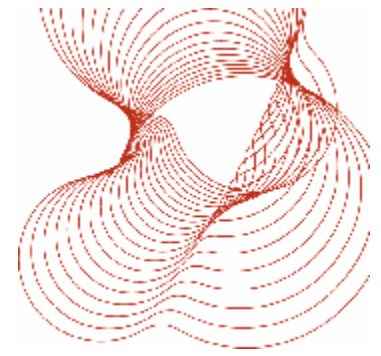


Plate 1 – specimen during construction

report ends