

TEST REPORT

REPORT NO.: 2014FE0036

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This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This Test Report shall not be reproduced, except in full and shall not be used for advertising purposes by any means or forms without written approval from Managing Director of SIRIM QAS International Sdn. Bhd. Please refer overleaf for conditions to the use of Test Report.

Applicant : **SPACE (ASIA) SDN. BHD.**
No. 24, Jalan Industri USJ 1/11,
Taman Perindustrian USJ 1,
47600 Subang Jaya,
Selangor Darul Ehsan.
(Attn: Mr. Philip Leong)

Manufacturer : **B.P. PRODUCTS & SUPPLY CO. LTD.**
139/4 Moo 5 T.Samkwaipuek,
Muang District, Nakornpathom,
73000 Thailand.

Product : **FIBREGLASS REINFORCED POLYESTER ROOFING SHEETS**

Reference : BS 476 : Part 7: 1997
Standard/ Fire Test on Building Materials and Structures
Method of Test Part 7: Surface Spread of Flame Test.

Description of Test : 6 pieces of Fibreglass Reinforced Polyester Roofing Sheets.
Specimen
Size of Specimen : 270mm × 885mm × 1.5mm (measured thickness)
Brand : SPACE Star-Lite Series Fire Retardant Grade
Model : Star-Lite Fire Retardant Grade
Colour : Jade Clear
Nominal Thickness : 1.5 mm
Measured Density : 1333 kg/m³

The specimens were tested with the smooth face side exposed to the specified heating condition of the fire test.

Date Received : 08.01.2014
Date of Test : 11.02.2014
Job No./ Ref No. : J20141440001 /SQAS/FPS/15/1-6
Test Result : **Classification of Surface Spread of Flame Test : Class 2**
Issued Date : 21 FEB 2014

MUHAMMAD SAFUAN MUSA
Testing Executive



ROHAYA IBRAHIM
Head
Fire Protection Section
Testing Services Department
SIRIM QAS International Sdn. Bhd.

7.0 CONDITIONS RELATING TO THE USE OF SIRIM QAS INTERNATIONAL TEST REPORT

- 7.1 A Test Report will be issued in respect of Testing Services conducted and shall relate only to the Sample actually tested. SIRIM QAS International makes no warranty whatsoever and the Applicant shall not represent in any manner that any duplication or mass production of the Product is same as the Sample actually tested or that SIRIM QAS International has tested any of the duplicated or mass produced Product.
- 7.2 The Test Report shall not be amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
- 7.3 If the Test Report is to be furnished to any third party or to the public, each such Test Report shall be furnished in full, legible and in its entirety.
- 7.4 The Test Report shall not be reproduced and shall not in any manner be used for any advertising purposes or whatsoever without written approval from the Managing Director of SIRIM QAS International of No. 1, Persiaran Dato' Menteri, Building 8, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan.
- 7.5 Further or in the alternative, it is strictly forbidden unless with prior written approval from the Managing Director of SIRIM QAS International, to represent in any manner whatsoever that SIRIM and/or other SIRIM's subsidiaries has endorsed, approved or validated the Product of the Applicant in any manner whatsoever.
- 7.6 The use of SIRIM QAS International, SIRIM or other SIRIM's subsidiaries logo and/or words such as "SIRIM: Tested and Proven" and similar representations are strictly forbidden in any manner whatsoever without the prior written approval from the Managing Director of SIRIM QAS International.
- 7.7 In the event the Applicant is found in breach of this provision, SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries without prejudice to any other right and remedies may take whatever action necessary including but not limited to:
 - a) Informing and placing a notice in the media;
 - b) Obtaining an injunction from Court (cost on a solicitor-client basis to be borne by the Applicant);
 - c) Refusing to accept any further Product for Testing Services from the Applicant or whosoever related to the Applicant, whether subsidiary or otherwise;
 - d) Instructing the Applicant to withdraw and recall the advertisement, statement or document in question and advertise a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries twice in a national publication of SIRIM QAS International's choice at the Applicant's sole cost; and
 - e) Informing or lodging a report pertaining the Applicant's Test Report with the relevant authorities.
- 7.8 In the event of an investigation from any third party concerning the Applicant's Test Report, SIRIM QAS International may disclose the same for purposes of such investigation.
- 7.9 If such approval is obtained from the Managing Director of SIRIM QAS International, the Applicant may only include the phrase. "A sample of this product has been tested by SIRIM QAS International... (Test Report No) ... (dated) (for what test) ... (to which standard)" or such similar words which stress that only the Sample was actually tested.
- 7.10 Certified true copies of the Test Report may be issued upon request by the Applicant upon payment of the relevant fee.

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Name of Applicant : SPACE (ASIA) SDN. BHD.
Name of Manufacturer : B.P PRODUCT & SUPPLY CO. LTD.
Product : FIBREGLASS REINFORCED POLESTER ROOFING SHEETS
Brand : SPACE Star-Lite Series Fire Retardant Grade
Model : Star-Lite Fire Retardant Grade
Colour : JADE Clear
Nominal Thickness : 1.5 mm
Measured Thickness : 1.5 mm
Measured Density : 1333 kg/m³
Date of Test : 11.02.2014

Requirement

The flame spread on any specimen of the sample shall not exceed the limit assigned for the class with the proviso that for one specimen only in the sample the flame spread may exceed this limit by the tolerance shown.

Classification of Surface Spread of Flame

Classification	Flame Spread at 1½ min		Final Flame Spread	
	Limit (mm)	Tolerance for one specimen in sample (mm)	Limit (mm)	Tolerance for one specimen in sample (mm)
Class 1	165	25	165	25
Class 2	215	25	455	45
Class 3	265	25	710	75
Class 4	Exceeding Class 3 limits			



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Test Results

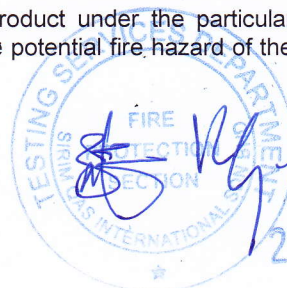
Product : FIBREGLASS REINFORCED POLYESTER ROOFING SHEETS
Brand : SPACE Star-Lite Series Fire Retardant Grade
Model : Star-Lite Fire Retardant Grade **Nominal Thickness** : 1.5 mm
Colour : JADE Clear **Measured Thickness** : 1.5 mm
Date of Test : 11.02.2014 **Measured Density** : 1333 kg/m³

Specimen No.	1	2	3	4	5	6
Spread of flame at 1½ minutes (mm)	200	200	200	100	120	120
Distance (mm)	Time of spread of flame to indicated distance (minutes . seconds)					
75	0.32	0.51	0.41	1.12	1.05	0.54
165	1.00	1.10	1.06	2.24	1.46	1.44
190	1.23	1.28	1.27	2.40	1.53	1.58
215	1.40	1.44	1.41	3.20	1.57	2.15
240	1.58	2.00	2.19	3.47	2.18	2.37
265	2.19	2.24	2.28	4.30	2.37	3.05
290	2.29	2.48	2.50	4.57	3.26	3.18
375	5.10	4.54	3.40	-	-	-
455	-	-	4.10	-	-	-
500	-	-	-	-	-	-
525	-	-	-	-	-	-
600	-	-	-	-	-	-
675	-	-	-	-	-	-
710	-	-	-	-	-	-
750	-	-	-	-	-	-
785	-	-	-	-	-	-
825	-	-	-	-	-	-
865	-	-	-	-	-	-
Time of maximum spread of flame (minutes . seconds)	7.58	7.05	4.39	6.13	4.04	5.08
Distance of maximum spread of flame (mm)	400	440	465	350	320	350

Conclusion

In accordance with the class definition specified in the standard, the test results show that the sample tested has a Class **Two** Surface Spread of Flame.

The test results relate only to the behavior of the test specimens of a product under the particular conditions of test; they are not intended to be sole criterion for assessing the potential fire hazard of the product in use.



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