



SIRIM QAS International Sdn. Bhd. (410334-X)  
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## TEST REPORT

REPORT NO : 2016PC0724

PAGE NO : 1 OF 4

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Applicant : GB PLAS SDN. BHD.  
3785, Jalan Changkat  
14300 Nibong Tebal  
Pulau Pinang

Manufacturer : - same as above -

Product : POLYCARBONATE SHEET

Reference Standard : Please refer to Page 2

Description of Sample : Ten (10) cut pieces indicated as 'POLYCARBONATE SHEET' sample with dimensions of approximately 300 mm (length) x 300 mm (width) x 2.6 mm (thickness), was received on 8 September 2016.

Date Received of Complete Application : 9 September 2016

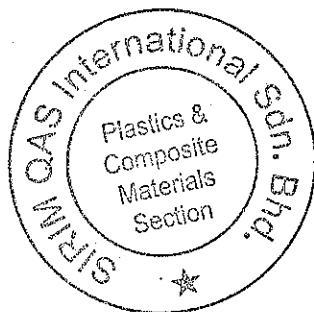
Job No. : J20161460402

Description of Test Result : The test results of the submitted test sample are described in Pages 3 and 4 of this test report.

Issued date : 26 September 2016

Approved Signatory:

(Ir Zarina Rasmin)  
Senior Consultant

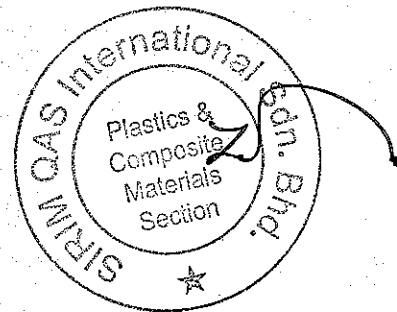


(Rahmad Bin Abd Shukur)  
Head  
Plastics and Composite Materials Section  
Testing Services Department

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**Reference Standard:**

- 1) ASTM D638: 2014 – Standard Test Method for Tensile Properties of Plastics
- 2) ASTM D790: 2015 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- 3) ASTM D256: 2010 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
- 4) ASTM D648: 2016 – Standard Test Method for Deflection Temperature of Plastics Under Flexural load in the Edgewise Position
- 5) ASTM D2240: 2015 – Standard Test Method for Rubber Property – Durometer Hardness
- 6) ASTM D792: 2013 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- 7) ASTM D570: 2010 – Standard Test Method for Water Absorption of Plastics

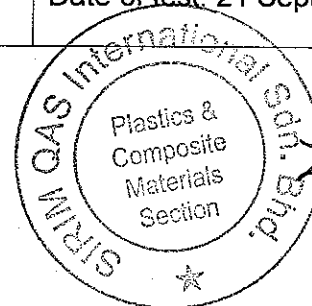


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**Results:****POLYCARBONATE SHEET**

No.	Property	Result	Test Method
1	Specific Gravity	1.20	ASTM D 792
2	Density, g/cm <sup>3</sup>	1.20	Method A Date of test: 20 September 2016
3	Tensile Strength, MPa	66.9	ASTM D638
4	Elongation at Break*, %	39.0	Crosshead speed for tensile strength and elongation at break determination: 50 mm/minute Crosshead speed for tensile modulus determination: 5 mm/minute
5	Tensile Modulus*, MPa	2,500	Test specimen: Dumbell Type I Date of test: 20 September 2016
6	Flexural Strength, MPa	98.0	ASTM D790
7	Flexural Modulus, MPa	2,410	Crosshead speed: 1.1 mm/minute Span distance: 42 mm Date of test: 20 September 2016
8	Izod Impact Resistance, J/m	863	ASTM D256 Sample type: Notched Pendulum capacity: 7.5 Joule Date of test: 21 September 2016
9	Heat Deflection Temperature, °C		ASTM D648*
	Stress: 0.45 MPa	142	Heating Rate: 120°C/ hour
	Stress: 1.82 MPa	135	Deflection: 0.25 mm Orientation: Edgewise Date of test: 21 September 2016

Note: \* Not SAMM Accredited.



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**Results (cont'd):****POLYCARBONATE SHEET**

No.	Property	Result	Test Method
10	Hardness, Shore A	77.6	ASTM D2240 Time Interval: 1 second Number of layer: 3 Temperature: 24.4°C Relative Humidity: 55% Date of test: 20 September 2016
11	Water Absorption, %	0.18	ASTM D570* Duration: 24 hours Date of test: 21 September 2016

Note: \* Not SAMM Accredited.

