

No. : SHIN1606027157MR-01 Date : Jun 15, 2016 Page: 1 of 8

CUSTOMER NAME:SHANGHAI PG AQUARIUMS & LANDSCAPING CO.,LTDADDRESS:NO.23 TONGJIAN ROAD, SONGJIANG DISTRICT, SHANGHAI

This Report cancels and supersedes the Report No.: SHIN1606027157MR dated: Jun 13 ,2016 issued by SGS-CSTC Standards Technical Services (Shanghai) Co.,Ltd, original report will be invalid from today.

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name	:	Acrylic Sheets/Panels
SGS Ref. No.	:	SHIN1606027011PS
Manufacturer	:	Shanghai PG Aquariums & Landscaping
Date of Receipt	:	Jun 03, 2016
Testing Start Date	:	Jun 03, 2016
Testing End Date	:	Jun 13, 2016
Test result(s)	:	For further details, please refer to the following page(s) $% \left( f_{i} \right) = \left( f_{i} \right) \left$

Signed for SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Xiattan

Xia Hai Authorized signatory



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Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Deflection Temperature under Load	GB/T 1634.1-2004 & GB/T 1634.2-2004 Method A	91 °C	/
2	Flexural Strength	GB/T 1449-2005	98.4 MPa	/
3	Izod Unnotched Impact Strength	GB/T 1843-2008	14 kJ/m <sup>2</sup> C (complete break)	/
4	Rockwell Hardness	GB/T 3398.2-2008	106 L	/
5	Tensile Strength	GB/T 1040.1-2006 & GB/T 1040.2-2006	65.3 MPa	/
6	Total Luminous Transmittance	GB/T 2410-2008 Method A	93.1 %	/

Note:

Pass : Meet the requirements;

Fail : Does not meet the requirements;

/: Not Apply to the judgment.



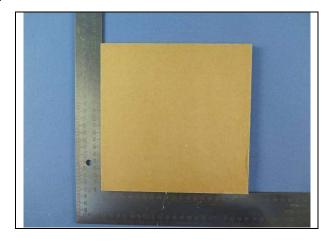
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Original Sample Photo:





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1. Test Item: Deflection Temperature under Load

Sample Description: Transparent plastic panel

Test Method: GB/T 1634.1-2004 & GB/T 1634.2-2004 Method A

**Test Condition:** 

Specimen: 80 mm × 9.94 mm × 9.49 mm

Heat-transfer media: Silicone oil

T<sub>ff</sub>1.8

Rate of temperature: 120°C/h

Span: 64mm

Lab Environmental Condition: 23 ± 2 °C, 50 ± 5 %RH

Test Result:

Test Item	Test Result
Deflection Temperature under Load	91 °C

Note: Test specimens were cut from the sample.



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2. Test Item: Flexural Strength

Sample Description: Transparent plastic panel

Test Method: GB/T 1449-2005

**Test Condition:** 

Specimen: 180 mm × 14.928 mm × 9.307 mm

Testing speed: 10 mm/min

Span: 148 mm

Lab Environmental Condition: 23 ± 2 °C, 50 ± 5 %RH

Test Result:

Test Item	Test Result
Flexural Strength	98.4 MPa

Note: Test specimens were cut from the sample.



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3. Test Item: Izod Unnotched Impact Strength

Sample Description: Transparent plastic panel

Test Method: GB/T 1843-2008

Test Condition:

Specimen: GB/T 1843/U

Specimen thickness: 9.46 mm

The capacity of the pendulum: 11 J

Impact speed: 3.46 m/s

Lab Environmental Condition: 23 ± 2 °C, 50 ± 5 %RH

Test Result:

Test Item	Test Result		
Izod Unnotched Impact Strength	14 kJ/m <sup>2</sup> C (complete break)		
Note: Test specimens were sut from the sample	C (complete break)		

Note: Test specimens were cut from the sample.



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4. Test Item: Rockwell Hardness

Sample Description: Transparent plastic panel

Test Method: GB/T 3398.2-2008

**Test Condition:** 

Specimen thickness: 9.54 mm

Lab Environmental Condition: 23 ± 2 °C, 50 ± 5 %RH

Test Result:

Test Item	Test Result		
Rockwell Hardness	106 L		

Note: Test specimens were cut from the sample.



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5. Test Item: Tensile Strength

Sample Description: Transparent plastic panel

Test Method: GB/T 1040.1-2006 & GB/T 1040.2-2006

**Test Condition:** 

Specimen width of narrow part: 9.991 mm

Specimen thickness: 9.258 mm

Testing speed: 5 mm/min

Initial distance between grips: 115 mm

Lab Environmental Condition: 23  $\pm$  2  $^\circ\!{\rm C}$  , 50  $\pm$  5  $^{\circ}\!{\rm RH}$ 

Test Result:

Test Item	Test Result		
Tensile Strength	65.3 MPa		

Note: Test specimens were cut from the sample.

6. Test Item: Total Luminous Transmittance Sample Description: Transparent plastic part

Test Method: GB/T 2410-2008 Method A

Test Condition:

Specimen thickness: 9.4mm

Light source: C

Lab Environmental Condition: 23  $\pm$  2  $^\circ\!\mathrm{C}$  , 50  $\pm$  5 % RH

Test Result:

Test Item	Test Result
Total Luminous Transmittance	93.1%

Note: Test specimens were cut from the sample.

\*\*\*\*\*\*\*\* End of report\*\*\*\*\*\*\*



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