

Material & Engineering Laboratory-Taichung

## TEST REPORT

REPORT NO. TV-10-02565ZA  
PAGE NO. 1 OF 3  
DATE: Dec. 9, 2010

Client

Supplier

Product Description

Style/ Item No.

Color

Submitted By

Received Date

Tested Date

Remark

The information mentioned in the above section is provided by testing applicant (Exclude tested date)

Test Result :

Test Item	Test Method	Result
Density(g/cm <sup>3</sup> )	ASTM D792-08	1.31
Tensile Strength(kgf/cm <sup>2</sup> )	ASTM D638-10	171
Elongation(%)	Type I · Rate:5mm/min	1
Flexural Strength(kgf/cm <sup>2</sup> )	ASTM D790-10	270
Flexural Modulus(kgf/cm <sup>2</sup> )	ASTM D790-10	35500
Compression Strength(kgf/cm <sup>2</sup> )	ASTM D695-10	312
Water Absorption(%) (at 23°C, after 24h)	ASTM D570-98(2005)	0.23
Nail-Head Pull-through Strength(kgf)	ASTM D1037-06a	358
Deflection Temperature(°C) (0.455Mpa)	ASTM D648-07 Method B	125.9
Impact test(kgf-cm/cm)	ASTM D256-06a Method A	1.22
Shear Strength (kgf/cm <sup>2</sup> )	ASTM D732-10	160

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The required specification(s) offered in this test report is/are for reference only.  
The conformity judgment is at the Applicant's final verdict.



Signed for and on behalf of  
SGS TAIWAN Ltd.

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Test Result :

Test Item	Test Method	Result	Method Detection Limit
Heavy Metal(ppm)			
Pb	EN 71 PART3:1994(AI:2000) Analysis with ICP-AES	<5	5
Cd		<5	5
Ba		<10	10
Cr		<5	5
Sb		<5	5
Hg		<5	5
Se		<5	5
As		<2.5	2.5

Note : 1. The Density, Tensile Strength, Elongation, Flexural Strength, Flexural Modulus, Compression Strength and Chemical Reagent Resistance in this test report are TAF registered items.

2. The Water Absorption test size : Length:5cm;Wide:Original Sample

3. Weather Test Conditions : ASTM G154-06(Cycle 1)  
(1) Typical Irradiance : 0.89 W/m<sup>2</sup>/@340nm  
(2) Lamp : UVA340  
(3)Exposure Cycle : 8h UV at 60 °C Black Panel Temperature;  
4h Condensation at 50°C Black Panel Temperature

4. The Material Analysis, Impact Strength and Deflection Temperature Test are Proceed by SGS-KAO M&E LAB.

5. The Heavy Metal Analysis is Proceed by SGS-TPE Chemical LAB.

6. The Sample is provided by Client.

7. This test report is an extra issued one of TV-10-02565Z.

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SGS/TAIWAN Ltd

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Test Result :

Test Item	Test Method	Result
Linear Change (%)		
-5°C after 4h	Ref.ASTM D1204-08	-0.4
55°C after 4h		+0.2
Static coefficient of Friction		
Dry	ASTM D1894-08	0.74
Wet		0.76
Material Analysis	FTIR+DSC	Polyethylene+Cellulose
Chemical Reagent Resistance(at 23°C after24h)		
5%H <sub>2</sub> SO <sub>4</sub>	ASTM D543-06	No Effect
5%NaOH		No Effect
Weather Resistance(600h)	ASTM G154-06	No Crack or Peel

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