Material & Engineering Laboratory-Taipei

TEST REPORT

REPORT NO.：HV-13-02948XA
PAGE： 1 OF 3
REPORT DATE：Aug. 27, 2013

HSIN HWA CHEMICAL CO., LTD.
NO. 1, YUNG-SHIANG ROAD, FANG-LIO HSIANG, PINTUNG HSIEN, TAIWAN, R.O.C.

The following merchandise was submitted and identified by the vendor as：
Product Description： Clear Acrylic Sheet-HH000

We have tested the submitted sample(s) as requested and the following results were obtained：
Test Required：(According to client's test specification, please see following sheets in detail.)
Weather Resistance

Test Result：
-PLEASE SEE ATTACHED SHEETS-

Date of Receive： MAY 07, 2013

Date of Testing： MAY 07, 2013 ~ AUGUST 27, 2013

Remark：The sample was transferred by SGS M&E Laboratory- Kaohsiung. (Application No. KV-13-04211W. Received date: Apr. 25, 2013) for the testing item(s) as below to be performed in SGS M&E-Laboratory-Taipei.

Signed for and on behalf of
SGS Taiwan Ltd.

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TEST REPORT

Weather Resistance

Test Equipment：

Name	Brand	Model
Accelerated Weathering Tester	Q-PANEL	QUV/SPRAY
Spectrophotometer	MINOLTA	CM-3600d

Lab Environmental Conditions：

Ambient temperature： 23±2℃
Relative humidity： 50±5%RH

Test Method：

ASTM G154-06 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

ASTM E313-10 Standard Practice for Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates

Test Condition：

Weather Resistance
Lamp： UVA-340
Typical Irradiance： 1.55W/m^2/nm
Approximate Wavelength：340 nm
Exposure Cycle： 8 hours UV at 60℃ Black Panel Temperature; 0.25 hours water spray (no light), temperature not controlled ; 3.75 hours Condensation at 50℃ Black Panel Temperature
Exposing duration： 2000 hours

Yellowness Indices (YI)
Illuminant： CIE illuminant D_{65}
Standard Observer： CIE 1964 standard colorimetric observer (10 ^{o} observer)
Measurement Area： 25.4mm
Measurement Interval： 10nm
Wavelength Range： 360nm~740nm
Mode of Measurement： Transmittance measurement
Equation for the calculation：YI = 100(1.3013X – 1.1498Z)/Y

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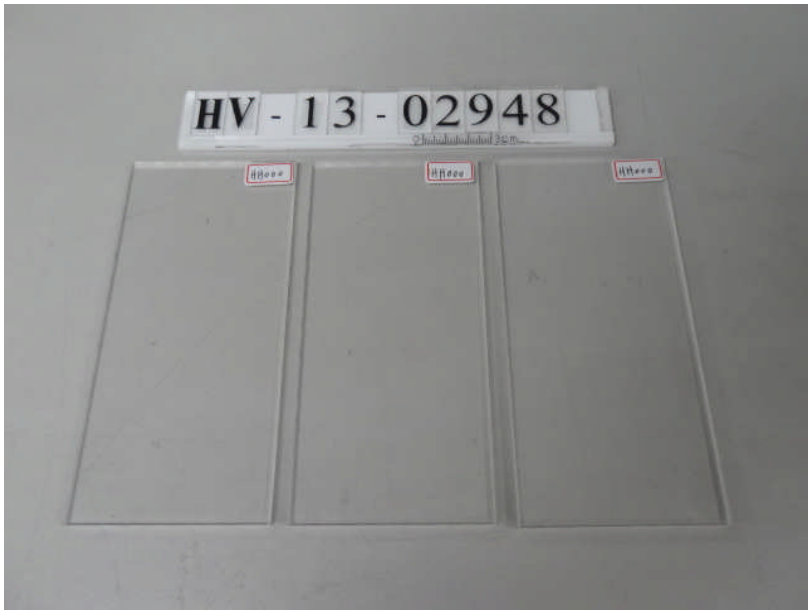
Test Result：

Test Item(s)	Original	500 hours	1000 hours	1500 hours	2000 hours
X	87.71	87.22	86.98	86.76	86.34
Y	92.51	92.05	91.85	91.64	91.22
Z	99.05	97.80	96.91	96.27	95.54
YI	0.27	1.15	1.92	2.40	2.75

Test Photo：



Test Sample

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