

# Test Report

No. AJD201200112

Date: JAN.19, 2012

Page 1 of 4

## XIAMEN UGUARD COMPOSITE MATERIALS CO., LTD

NO.88 XIANGXING ROAD, TORCH HIGH-TECH ZONE, XIANG'AN, XIAMEN, CHINA

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

**Sample Name:** POLYURETHANE FLAME RETARDANT PLASTICS

**P.O. / Ref No.:** FDAY008

### Test Requested:

To determine the performance of the sample when it is subjected to the conditions of test specified in UL 94, Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, Vertical Burning Test For Classifying Materials V-0, V-1 or V-2

**Test Results:** -- See attached sheet --

**Conclusion:** According to the test results and the classification system, the tested sample, when tested at a normal thickness of 9.3mm, is assigned as "UL 94, V-2"

### Test Period:

Sample Receiving Date : JAN.09, 2012

Test Performing Date : JAN.09, 2012 TO JAN.18, 2012

Signed for and on behalf of  
SGS-CSTC Co., Ltd.



Allen Zou  
Technical Supervisor

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/conditions>



# Test Report

No. AJD201200112

Date: JAN.19, 2012

Page 2 of 4

## I. Test conducted

This test was conducted in accordance with UL 94:2009, Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, clause 8, 50W (20 mm) Vertical Burning Test; V-0, V-1, or V-2

## II. Scope of test

The requirements of UL 94 cover tests for flammability of polymeric materials used for parts in devices and appliances. They are intended to serve as a preliminary indication of their acceptability with respect to flammability for a particular application. The final acceptance of the material is dependent upon its use in complete equipment that conforms with the standards applicable to such equipment.

## III. Sample details

|           |                                       |
|-----------|---------------------------------------|
| Material  | Polyurethane Flame Retardant Plastics |
| Color     | Transparent                           |
| Density   | About 5.3kg/m <sup>2</sup>            |
| Thickness | 9.3mm                                 |

## IV. Conditioning

Prior to testing:

Five specimens were conditioned for at least 48 h at a temperature of 23±2 and a relative humidity of 50±5%,

Five specimens were conditioned in a circulating air oven for 168 h at 70±1 and then cooled in the desiccator for at least 4 h at room temperature.

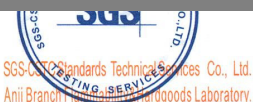
## V. Test results:

1) Conditioned at: T:23±2°C H :50±5 % 48 h

| Specimen No. | t1 (seconds) | t2 (seconds) | t3 (seconds) | Whether or not specimens burn up to the holding clamp | Whether or not specimens drip flaming particles that ignited the cotton indicator |
|--------------|--------------|--------------|--------------|---|---|
| 1            | 1            | 0            | 0            | No  | Yes   |
| 2            | 1            | 2            | 0            | No  | No  |
| 3            | 0            | 1            | 0            | No  | Yes   |
| 4            | 0            | 1            | 0            | No  | Yes   |
| 5            | 0            | 0            | 0            | No  | Yes   |

To be continued...

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/conditions>





# Test Report

No. AJD201200112

Date: JAN.19, 2012

Page 3 of 4

## 2) Conditioned at: 70± 1°C 168 h

| Specimen No. | t1 (seconds) | t2 (seconds) | t3 (seconds) | Whether or not specimens burn up to the holding clamp | Whether or not specimens drip flaming particles that ignited the cotton indicator |
|--------------|--------------|--------------|--------------|---|---|
| 1            | 1            | 1            | 0            | No  | Yes   |
| 2            | 0            | 1            | 0            | No  | Yes   |
| 3            | 0            | 0            | 0            | No  | No  |
| 4            | 1            | 0            | 0            | No  | Yes   |
| 5            | 1            | 0            | 0            | No  | No  |

Where, t1: Afterflame time after first flame application;  
t2: Afterflame time after second flame application;  
t3: Afterglow time after second flame application.

**Note:** Materials classified V-0, V-1 or V-2 shall comply with the following requirements

| Criteria conditions  | V-0  | V-1   | V-2   |
|--|------|-------|-------|
| Afterflame time for each individual specimen t1 or t2  | ≤10s | ≤30s  | ≤30s  |
| Total after flame time for any condition set (t1 plus t2 for the 5 specimens)                          | ≤50s | ≤250s | ≤250s |
| Afterflame plus afterglow time for each individual specimen after the second flame application (t2+t3) | ≤30s | ≤60s  | ≤60s  |
| Afterflame or afterglow of any specimen up to the holding clamp  | No   | No    | No    |
| Cotton indicator ignited by flaming particles or drops   | No   | No    | Yes   |

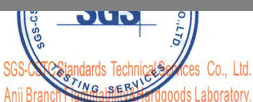
### STATEMENTS:

The test results only to the ignitability of the sample or combination of materials under the particular condition of test. They are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

The specimen was supplied by the sponsor and SGS-CSTC ANJI Branch was not involved in any selection or sampling procedure.

To be continued...

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/conditions>





# Test Report

No. AJD201200112

Date: JAN.19, 2012

Page 4 of 4

## Photo Appendix:



\*\*\*End of Report\*\*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/terms-and-conditions>