

TEST REPORT

REPORT NO.: HV-10-06778XA PAGE: 1 OF 6

DATE: NOVEMBER 18, 2010

PROWANG PLASTIC CO., LTD.

NO.55, FENGTIAN RD., DAPI SHIANG, YUNLIN COUNTY 63147, TAIWAN (R.O.C)

The following merchandise was submitted and identified by the vendor as:

<u>Product Description</u>: PVC Foam Sheet <u>Style/Item No.</u>: L-550 \ C-100

Manufacturer/Vendor: PROWANG PLASTIC CO., LTD.

Country of Origin: Taiwan

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.)

(1) 20 mm Vertical Burning Test (V-0, V-1, or V-2)

(2) Anti-flaming Test

<u>Test Result</u>:

-PLEASE SEE ATTACHED SHEETS-

Date of Receive: OCTOBER 21, 2010

Date of Testing: OCTOBER 21, 2010 ~ NOVEMBER 02, 2010

Signed for and on behalf of SGS Taiwan Ltd.

Given Chang Manager

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(1)20 mm Vertical Burning Test (V-0, V-1, or V-2)

Test Equipment:

Name	Brand	Model
Horizon Vertical Flame Chamber	ATLAS	HVUL2

Test Method:

In compliance with UL94 (1996) Test for Flammability of Plastic Materials for Parts in Devices and Appliances

Conditioning:

Conditioning 1: Specimens are to be preconditioned at $23\pm2^{\circ}$ C and $50\pm5\%$ percent relative

humidity for 48 hours

Conditioning 2: Specimens are to be preconditioned in an air-circulating oven for 168 hours at

70±1°C and then cooled in the desiccator for at least 4 hours at room temperature

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<u>Test Results</u>:

L-550

Conditioning 1: (Temperature: $23\pm2^{\circ}$ C; Relative humidity: $50\pm5\%$; Time: 48 hours)

Conditioning 1. (Temperature, 25±2 C.) Relative numberly, 30±3/0.7 Time, 10 nours)								
Criteria conditions	Specimen					Requirements		
Criteria conditions	1	2	3	4	5	V-0	V-1	V-2
Thickness(mm)	12.84	12.85	12.79	12.78	12.80	1	1	1
Afterflame time for each individual	0	0	0	0	0	≦ 10	≤ 30	≤ 30
specimen t1(Sec)	U	U	U	U	U	Sec	Sec	Sec
Afterflame time for each individual	0	0	0	0	0	≦ 10	≦ 30	≦ 30
specimen t2(Sec)	U	U	U	U	U	Sec	Sec	Sec
Total afterflame time (Sec)			0			≦ 50	≤ 250	≦ 250
(t1 plus t2 for the 5 specimens)	U					Sec	Sec	Sec
Afterflame plus afterglow time for each						≤ 30	≦ 60	≦ 60
individual specimen after the second	0	0	0	0	0	≥30 Sec	≥00 Sec	≥00 Sec
flame application(t2+t3) (Sec)						360	360	360
Afterflame or afterglow of any specimen	No	No	No	No	No	No	No	No
up to the holding clamp	110	110	110	110	110	110	110	110
Cotton indicator ignited by flaming	No	No	No	No	No	No	No	Yes
particles or drops	110	140	140	110	140	110	140	168

Conditioning 2: (Temperature: 70±1°C; Time: 168 hours; Cooled: 4 hours at room temperature)

Conditioning 2. (Temperature: 70±1 C.) Time: 100 hours 7 Cooled: 4 hours at 100m temperature)									
Criteria conditions		Specimen					Requirements		
	1	2	3	4	5	V-0	V-1	V-2	
Thickness(mm)	12.78	12.85	12.80	12.81	12.79	-	-	-	
Afterflame time for each individual	0	0	0	0	0	≦10	≦ 30	≦ 30	
specimen t1(Sec)	U	U	U	U	U	Sec	Sec	Sec	
Afterflame time for each individual	0	0	0	0	0	≦10	≦ 30	≦ 30	
specimen t2(Sec)	U	U	U	U	U	Sec	Sec	Sec	
Total afterflame time (Sec)			0			≦ 50	≤ 250	≤ 250	
(t1 plus t2 for the 5 specimens)	U						Sec	Sec	
Afterflame plus afterglow time for each						≦ 30	≦ 60	≦ 60	
individual specimen after the second	0	0	0	0	0	Sec Sec	≥00 Sec	≥00 Sec	
flame application(t2+t3) (Sec)						Sec	360	Sec	
Afterflame or afterglow of any specimen	No	No	No	No	No	No	No	No	
up to the holding clamp	110	110	110	140	110	110	110	110	
Cotton indicator ignited by flaming	No	No	No	No	No	No	No	Yes	
particles or drops	110	110	110	110	110	110	110	168	

Conclusion: The test results are compliant with the requirements of UL 94 V-0 (20mm Vertical Burning Test)

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C-100

Conditioning 1: (Temperature: $23\pm2^{\circ}$ C; Relative humidity: $50\pm5\%$; Time: 48 hours)

Conditioning 1 (Temperature: 23=2 C)	11010001	1107111107	$ij \cdot v \circ = v$, , , , ,	1101 10 11	0 002 5)		
Criteria conditions	Specimen					Requirements		
Criteria conditions	1	2	3	3 4 5		V-0	V-1	V-2
Thickness(mm)	12.11	12.08	12.17	12.20	12.05	-	-	-
Afterflame time for each individual	0	0	0	0	0	≤ 10	≦30	≤ 30
specimen t1(Sec)	U	U	U	U	U	Sec	Sec	Sec
Afterflame time for each individual	0	0	0	0	0	≤ 10	≦30	≤ 30
specimen t2(Sec)	U	U	U	U	U	Sec	Sec	Sec
Total afterflame time (Sec)			0			≦ 50	≤ 250	≤ 250
(t1 plus t2 for the 5 specimens)	0					Sec	Sec	Sec
Afterflame plus afterglow time for each						≤ 30	≦ 60	≦ 60
individual specimen after the second	0	0	0	0	0	≥30 Sec	≥60 Sec	
flame application(t2+t3) (Sec)						Sec	Sec	Sec
Afterflame or afterglow of any specimen	No	No	No	No	No	No	No	No
up to the holding clamp	NO	NO	NO	NO	NO	NO	NO	NO
Cotton indicator ignited by flaming	No	No	No	No	No	No	No	Yes
particles or drops	140	140	110	140	140	110	110	168

Conditioning 2: (Temperature: 70±1°C; Time: 168 hours; Cooled: 4 hours at room temperature)

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Specimen					Requirements		
1	2	3	4	5	V-0	V-1	V-2
12.17	12.08	12.07	12.10	12.05	-	-	-
0	0	0	0	0	≦ 10	≦30	≦ 30
U	U	U	U	U	Sec	Sec	Sec
0	0	0	0	0	≦ 10	≦30	≦30
U	U	U	U	0	Sec	Sec	Sec
		0			≦ 50	≤ 250	≤ 250
U					Sec	Sec	Sec
					< 20	< 60	≦ 60
0	0	0	0	0			≥00 Sec
					Sec	Sec	Sec
No	No	No	No	No	No	No	No
NO	110	110	110	110	110	NO	NO
No	No	No	No	No	No	No	Yes
110	140	110	140	110	140	140	168
	1 12.17 0	1 2 12.17 12.08 0 0 0 0 No No	Specimer 1 2 3 3 12.17 12.08 12.07 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 No	Specimen 1 2 3 4 12.17 12.08 12.07 12.10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 No	Specimen 1 2 3 4 5 12.17 12.08 12.07 12.10 12.05 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 No No No No No	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Conclusion: The test results are compliant with the requirements of UL 94 V-0 (20mm Vertical Burning Test)

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(2)Anti-flaming Test

<u>Test Equipment</u>:

Name	Brand	Model
Meker's burner	-	-

<u>Lab Environmental Conditions</u>:

Ambient temperature: $23\pm2^{\circ}$ C Relative humidity: $65\pm5\%$ RH

<u>Test Method</u>:

Refet to CNS 7614(1994) Method of Test for Flammability of Thin Matericals (Method A)

<u>Test Result</u>:

L-550

Test Item	Test Result	Standard values of CNS 7614(1994) Anti-flaming Grade 1	Standard values of CNS 7614(1994) Anti-flaming Grade 2	Standard values of CNS 7614(1994) Anti-flaming Grade 3
Flames heating time(sec)	60	-	-	-
Remaining flame time(sec)	0.0	≦1	≦5	≦5
Embers time(sec)	0.0	≦ 60	≦ 60	≦ 60
Length of carbonization(cm)	12.2	≦5	≦ 10	≦15

Note: Sample thickness is 12.8mm •

L-550

Test Item	Test Result	Standard values of CNS 7614(1994) Anti-flaming	Standard values of CNS 7614(1994) Anti-flaming	Standard values of CNS 7614(1994) Anti-flaming	
		Grade 1	Grade 2	Grade 3	
Flames heating time(sec)	60	-	-	-	
Remaining flame time(sec)	0.0	≦1	≦5	≦5	
Embers time(sec)	0.0	≦ 60	≦ 60	≦ 60	
Length of carbonization(cm)	12.0	≦5	≦10	≦ 15	

Note: Sample thickness is 12.0mm •

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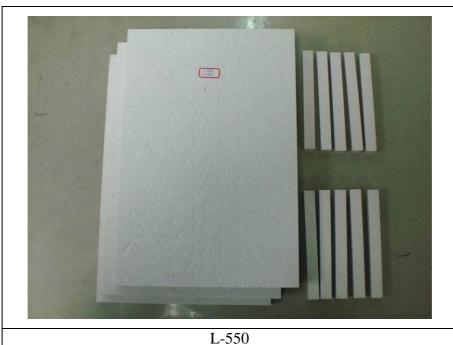
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Test Photo:





- The End of Test Report -

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