

Mechanical & Hardgoods Laboratory

Report No.: HL60434A/2015

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Date: AUG. 07, 2015

#### RAYNOR MARKETING LTD.

525 Hempstead, Turnpike, West Hempstead, NY 11552, USA

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

**Product Description:** Multifunctional Task Chair with Adj arm

Style/Item No.: LLR20979. LLR20980

Buyer/Order No.: RAYNOR MARKETING LTD Manufacturer/Vendor: SONG LIN FURNITURE CO., LTD.

Country of Origin: China

We have tested the submitted sample(s) as requested and the following results were obtained:

**Test Requested:** (1). According to ISTA 3A: 2008 Packaged-Product Test

(Excluding Atmospheric conditioning & Random Vibration under Low Pressure)

(2). Bursting Strength Test

**Test Criteria:** Defined by client as below

(1). For product(s): Examine the appearance of the product by visual check after

package test. No visible damage (such as crack, breakage,...etc.)

after package test.

(2). For package: The integrity of package shall be retained. The container still

affords reasonable protection to the contents, maintaining the correct

position of product, and sufficient rigidity.

<u>Test Method & Result:</u> ---See following sheet(s)---

Date of Receipt: Jun. 24, 2015 & Jul. 03 2015 & Aug. 03, 2015

Testing Period: Jun. 24, 2015 ~ Jul. 23, 2015 & Aug. 03, 2015 ~ Aug. 06, 2015

Conclusion: The submitted sample **complies with** the ISTA 3A:2008 Packaged-Product Test

(Excluding Atmospheric conditioning & Random Vibration under Low Pressure)

and Bursting Strength test.

Signed for and on SĞS Taiwan Ltd.

Lawrence Yang Asst. Supervisor

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### **Test Method & Test Result:**

(1). Package test -- ISTA 3A:

**Test Equipment:** 

Name	Brand	Model	Serial No.
Drop Tester	King Design	KD-128A	WR112197097
Electrodynamics Type Vibration Tester	Vibration Source	VS-1000V HTBH 6060	1099
Accelerometer	PCB	J352C34	146403

### **Lab Environmental Conditions:**

Ambient temperature:

Relative humidity:

55±5 %RH

### Test Sequence:

Package test includes several tests, the test sequence is as following:

	Test Sequence	Test Item
Ī	1	Atmospheric Preconditioning test
	3	First Drop test
Ī	4	Random Vibration test
	6	Second Drop test

#### <u>Test Method/ Specification:</u>

# 1. Atmospheric Preconditioning test:

Temperature: <u>25 °C</u>

55 %RH Humidity:

Duration: 12 hours

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### Test Method/ Specification-- Continued:

### 3. First Drop test:

Drop sequence:

<b>Drop Number</b>	Drop Height	Specific Face, Edge or Corner	
1	46 cm	Edge 3-4	
2	46 cm	Edge 3-6	
3	46 cm	Edge 4-6	
4	46 cm	Corner 3-4-6	
5	46 cm	Corner 2-3-5	
6	46 cm	Edge 2-3	
7	46 cm	Edge 1-2	
8	91 cm	Face 3	
9	46 cm	Face 3	

#### 4. Random Vibration test:

(1) Over-The-Road Trailer Simulation

Random 1~200 Hz

Wave form: Frequency:

Frequency	PSD	
(Hz)	$(g^2/Hz)$	
1.0	0.0007	
3.0	0.02	
5.0	0.02	
7.0	0.001	
12.0	0.001	
15.0	0.004	
24.0	0.004	
28.0	0.001	
36.0	0.001	
42.0	0.003	
75.0	0.003	
200.0	0.000004	
⇒equivalent to 0.53 G <sub>rms</sub>		

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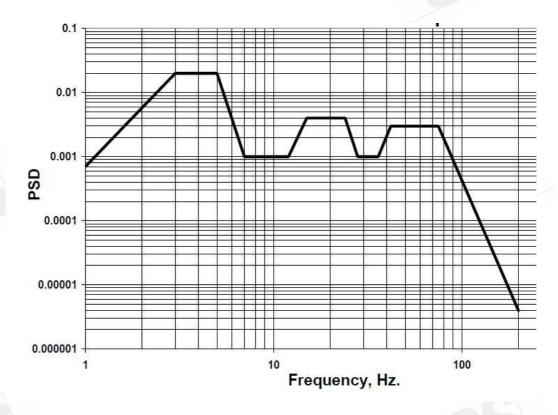
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Test Orientation/ Duration: As shown in table below

Formula, with values,	Top Load	Test Duration	Identify face of resting on
used to calculate	(kg)	(minutes)	table surface
TL-H	84	60	Face 3
TL-W	96	30	Face 4
TL-L	76	30	Face 6



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Test Method/ Specification-- Continued:

4. Random Vibration test--Continued:

(2) Pick-up and delivery vehicle

Wave form:

Frequency:

Random

<u>1~200 Hz</u>		
Frequency	PSD	
(Hz)	$(g^2/Hz)$	
1.0	0.001	
3.0	0.035	
4.0	0.035	
7.0	0.0003	
13.0	0.0003	
15.0	0.001	
24.0	0.001	
29.0	0.0001	
50.0	0.0001	
70.0	0.002	
100.0	0.002	
200.0	0.00005	
⇒equivalent to 0.46 G <sub>rms</sub>		

Test Orientation/ Duration: As shown in table below

Identify face of resting on table surface	Test Duration (minutes)
Face 3	30

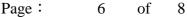
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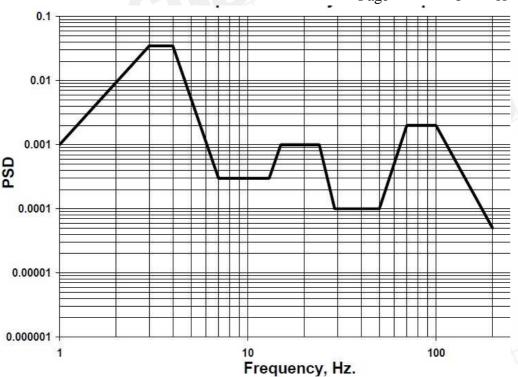
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### 6. Second Drop test:

Drop sequence:

p sequence.			
Drop Number	Drop Height	Specific Face, Edge or Corner	
10	46 cm	Edge 3-4	
11	46 cm	Edge 3-6	
12	46 cm	Edge 1-5	
13	46 cm	Corner 3-4-6	
14	46 cm	Corner 1-2-6	
15	46 cm	Corner 1-4-5	
16	91 cm	Most critical or damage-prone flat orientation	
17	46 cm	Face 3 on hazard	

### **Physical Description:**

Carton Style: Standard

Carton size: L:690 mm W: 580 mm H: 650 mm

Weight: 25.3 kg

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### Description of Package:

- 1. Double wall corrugated carton was closed with clear plastic tape and fixation four plastic straps
- 2. The arms, screws and casters were put into the small box.
- 3. The back was packed by transparent plastic bag.
- 4. The base was protected by paperboard and the seat put into the small box. (as shown in photo B~E)
- 5. Finally, place all parts into the carton and put two paper tubes into the carton for supporting.

Test Result:
Pass X Failed

(2). Bursting Strength Test

Sample	Method	Outer →Inner (psi)	Inner → Outer (psi)
Carton	Refer to TAPPI T810	313.3 (Avg)	318.1 (Avg)

Requirement: 250 psi

### **Test Photos:**



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### **Test Photos:**





Photo E: Package style-4

Photo F: Appearance of the products





Photo G: Random Vibration test-Face 3

Photo H: Random Vibration test-Face 4



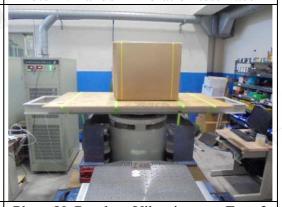


Photo I: Random Vibration test-Face 6 | Photo V: Random Vibration test-Face 3

--- End of Report ---

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