

**Test Report No. 7191035459-MEC12-OCS**  
**dated 27 Jun 2012**  
**(QM-0512-083Rev1)**



PSB Singapore

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**Subject:**

Testing of Office Chair submitted by Merryfair Chair System Sdn Bhd on 18 May 2012.

**Tested For:**

Merryfair Chair System Sdn Bhd  
No 2, Jalan Koporat 1/KU9, Taman Perindustrian Meru,  
42200 Klang, Selangor D.E.  
Malaysia

**Date of Test:**

24 May 2012 to 26 May 2012

**Description of Sample:**

One complete set of Office Chair as shown in the photograph 1 was received. The following descriptions were given by the client:

Model : Silver Surf  
Product Type : Lounge Seat  
Country of Origin : Malaysia

**Method of Test:**

As requested by the client, the tests were conducted in accordance with the following standard:

ANSI/BIFMA X5.4 – 2005 "Lounge Seating – Tests"

The tests were conducted at TÜV SÜD PSB furniture test laboratory, a FIRA (UK) Accredited Testing Laboratory, located at No.1 Science Park Drive. Singapore 118221.



Laboratory:  
TÜV SÜD PSB Pte. Ltd.  
No.1 Science Park Drive  
Singapore 118221

Phone : +65-6885 1333  
Fax : +65-6776 8670  
E-mail: testing@tuv-sud-psb.sg  
www.tuv-sud-psb.sg  
Co. Reg : 199002667R

Regional Head Office:  
TÜV SÜD Asia Pacific Pte. Ltd.  
3 Science Park Drive, #04-01/05  
The Franklin, Singapore 118223  
**TUV**<sup>®</sup>

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**Results:**

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Horizontal – Static	Functional load = 667 N Proof load = 1112 N Duration = 1 min	Passed	Functional load: No loss of serviceability  Proof load: No sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable
6	Back Strength Test – Vertical – Static	Functional load = 890 N Proof load = 1334 N Duration = 1 min	Passed	
7	Back Durability Test – Horizontal – Cyclic	Seat weight = 102 kg Applied load = 334 N Cycles = 120000 Rate = 10 - 30 cycles/min	Passed	No loss of serviceability
8	Back Durability Test – Vertical – Cyclic	Applied load = 890 N Cycles = 10000 Rate = 10 - 30 cycles/min	Passed	
9	Arm Strength Test – Horizontal – Static	Functional load = 677 N Proof load = 890 N Duration = 1 min	Passed	Functional load: No loss of serviceability  Proof load: No sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable
10	Arm Strength Test – Vertical – Static	Functional load = 890 N Proof load = 1334 N Duration = 1 min	Passed	
11	Arm Durability Test – Horizontal – Cyclic	Applied load = 445 N Cycles = 50000 Rate = 10 – 30 cycles/min	Passed	No loss of serviceability
12	Arm Durability Test – Vertical – Cyclic	Applied load = 890 N Cycles = 10000 Rate = 10 – 30 cycles/min	Passed	
13	Seating Durability Test – Cyclic			No loss of serviceability
	Type II i) Impact Test	Seat load = 57kg Unloaded seats = 102kg Cycles = 100000 Rate = 10 - 30 cycles/min	Passed	
	ii) Front Corner Load – Cyclic – Off-center	Applied load = 734 N Cycles = 40000 Rate = 10 - 30 cycles/min		

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**Results:**

Clause	Test	Parameters	Results	Requirement
14	Drop Test – Dynamic	Functional load = 102 kg Proof load = 136 kg Drop ht = 152 mm Untested seat = 102 kg	Passed	Functional load: No loss of serviceability  Proof load: No sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable
15	Structural Durability Test – Cyclic	Seat weight = 102 kg Applied load = 445 N Cycle = 100000 Rate = 10 - 30 cycles/min	Passed	No loss of serviceability
16	Base Test – Static	Applied load = Duration = Cycles =	N/A	No loss of serviceability to the base
17	Leg Strength Test – Front and Side Application  i) Front  ii) Side	Functional load = 334 N Proof load = <u>556</u> N Duration = 1 min  Functional load = 334 N Proof load = <u>556</u> N Duration = 1 min	Passed	Functional load: No loss of serviceability  Proof load: No sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable
18	Unit Drop Test – Dynamic	Drop height = 305mm	Passed	No loss of serviceability
19	Caster/Unit Base Durability Test – Cyclic	Loading weight = Cycles = Rate =  Applied force =	N/A	No loss of serviceability  Caster shall not separate from base as a result of the application of the 22 N force.

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**Results:**

Clause	Test	Parameters	Results	Requirement
20	Swivel Test – Cyclic	Seat weight = Cycles = Rate =	N/A	No loss of serviceability
21	Tilt Mechanism Test – Cyclic	Seat weight = Cycle = Rate =	N/A	
22	Stability Tests a) Rear Stability b) Front Stability	Seat weight = 78kg Force = <u>266</u> N  Force angle = $45^{\circ} \pm 5^{\circ}$ Force determined = <u>350</u> N	Passed	Force shall not cause the unit to tip over  Force determined for rear support to lift off shall not be less than 40% of total unit weight
23	Tablet Arm Load Ease Test – Cyclic	Applied load = Cycles = Rate =	N/A	No loss of serviceability
24	Tablet Arm Static Load Test	Applied load = Duration =	N/A	No sudden and major change in the structural integrity of the chair. After test, tablet arm must allow egress from the unit; other losses of serviceability are acceptable

**Remarks:**

1) N/A: Not applicable due to features not available on chair.

  
 Gavin Ong  
 Associate Engineer

  
 Chin Fook Onn  
 Product Manager  
 Consumer & Safety Products  
 Mechanical Centre



Photograph 1 : Silver Surf



**Test Report No. 7191035459-MEC11-OCS**  
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July 2011

