

Test Report No. 7191059426-MEC13-CSL
dated 22 May 2013

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

**Choose certainty.
Add value.**

SUBJECT:

Testing of Chair submitted by Merryfair Chair System Sdn Bhd on 25 Apr 2013 and 16 May 2013.

TESTED FOR:

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

Attn: Dato Ong Hooi Lim

DATE OF TEST:

25 Apr 2013 to 20 May 2013

DESCRIPTION OF SAMPLE:

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

Model	:	JUVEL
Product Type	:	Office Chair
Country of Origin	:	Malaysia
Classification	:	Type III

METHOD OF TEST:

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

ANSI/BIFMA X5.1-2011 "General-Purpose Office Chairs – Tests"



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
TÜV[®]

Test Report No. 7191059426-MEC13-CSL
dated 22 May 2013



PSB Singapore

RESULTS:

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I	Functional load = Proof load = Duration =	N/A	Functional load: No loss of serviceability
6	Back Strength Test – Static – Type III	Functional load = 667 N Proof load = 1,112 N Duration = 1 min	Passed	Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
7	Base Test – Static	Loading force = Duration = Cycles =	N/A	No sudden & major change in the structural integrity of the base.
8	Drop Test – Dynamic	Functional load = 102 kg Proof load = 136 kg Drop height = 152 mm	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
9	Swivel Test – Cyclic	Seat load = Total cycles = Rate =	N/A	No loss of serviceability
10	Tilt Mechanism Test – Cyclic	Seat load = Cycles = Rate =	N/A	No loss of serviceability to the tilt mechanism
11	Seating Durability test – Cyclic - Impact Test	Seat load = 57 kg Drop height = 30 mm Cycles = 100,000 Rate = 10 - 30 cycles/min	Passed	No loss of serviceability
	- Front Corner Load-Ease Test – Cyclic – Off Center	Seat load = 734 N Cycle = 40,000 Rate = 10 - 30 cycles/min	Passed	



RESULTS:

Clause	Test	Parameters	Results	Requirement
12	Stability Tests - a) Rear Stability - Type III b) Front Stability	Loading = 6 disks Seat height \leq 710 mm Force = $0.1964(1195 - 450)$ = 146 N Vertical Load = 600 N Horizontal force = 20 N	Passed Passed	Chair shall not tip over.
13	Arm Strength Test – Vertical – Static	Functional load = Proof load = Duration =	N/A	Functional load: No loss of serviceability. For a height adjustable arm, it must hold the position within 6mm. Proof Load: No sudden & major change in structural integrity. For a height adjustable arm, it must not has a sudden drop in height of greater than 25mm. Loss of serviceability is acceptable
14	Arm Strength Test – Horizontal – Static	Functional load = Proof load = Duration =	N/A	Functional load: No loss of serviceability. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable

Sen Johns



RESULTS:

Clause	Test	Parameters	Results	Requirement
15	Back Durability Test – Cyclic – Type I	Seat weight = Loading force = Cycles = Rate =	N/A	No loss of serviceability
16	Back Durability Test – Cyclic – Type III	Seat weight = 102 kg Loading force = 334 N Cycles = 120,000 Rate = 10 - 30 cycles/min	Passed	
17	Caster / Chair Base Durability Test – Cyclic - Pedestal Base Chairs - Chairs with Legs	Seat weight = Cycles = Rate =	N/A N/A	
	Caster Retention for Each Caster	Applied force =	N/A	No part of castor shall separate from base
18	Leg Strength Test – Front & Side Application - Front Load Test	Functional load = 334 N Proof load = 503 N Duration = 1 min (each leg)	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
	- Side Load Test	Functional load = 334 N Proof load = 503 N Duration = 1 min (front and rear leg)	Passed	
19	Footrest Static Load Test – Vertical	Functional Load, Force, F1 =	N/A	Functional Load: No loss of serviceability or sudden loss of footrest height. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
		Footrest adjustment, Force F1 = Force, F2 = Duration =	N/A	
		Proof Load, Force = Duration =	N/A	

Signature



RESULTS:

Clause	Test	Parameters	Results	Requirement
20	Footrest Durability Test – Vertical – Cyclic	Loading force = Cycles = Rate =	N/A	No loss of serviceability. Adjustable footrest that move more than 25mm in the first 500 cycles shall be considered to have lost their serviceability.
21	Arm Durability Test – Cyclic	Applied force = Cycles = Rate =	N/A	No loss of serviceability.
22	Out Stop Tests for Chairs with Manually Adjustable Seat Depth	Seat weight = Loading weight = Cycles =	N/A	
23	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
24	Tablet Arm Load Ease Test – Cyclic	Force = Cycles = Rate =	N/A	No loss of serviceability

REMARKS:

1. N/A: Not applicable as features not available on chair.


Shareen Chan
Engineer


Wong Bee Hui
Product Manager
Mechanical Centre

APPENDIX:



Photograph : JUVEL Office Chair

Sen *John*

Test Report No. 7191059426-MEC13-CSL
dated 22 May 2013



PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011

