

Test Certificate

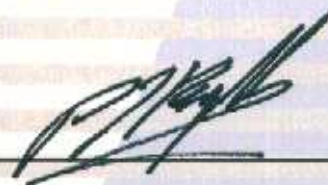
This certifies that the Dynamic Office Chair (DY1000) supplied by Benithem Sdn Bhd has been tested at PSB Corporation, on behalf of FIRA International Ltd, and has withstood the tests detailed in ANSI/BIFMA X5.1-2002 General-Purpose Office Chairs – Tests.

The Dynamic Office Chair (DY1000) is, according to the standard, therefore considered structurally suitable for use as an office chair.

FIRA Certificate Ref.: TAPSB00025

PSB Report Ref.: 54S054437/KLU

SIGNATURE



Phil Reynolds

POSITION

Testing Manager

CERTIFICATE DATE

04 January 2006

For and on behalf of FIRA INTERNATIONAL LIMITED
Terms and Conditions available on request

TEST CERTIFICATE



This Certificate is issued to

Benithem Sdn Bhd
No. 33, Jalan Industri 1
Taman Perindustrian Pekan Nanas
81500 Pekan Nanas
Pontian, Johor
Malaysia

FOR

Product: Office Chair

Brand/Model: Dynamic/DY1000

Detail: -

Specification: ANSI/BIFMA X5.1 – 2002

Test Report: 54S054437/KLU

Summary

A sample of the product/equipment has been tested and is found to comply with the requirements of the above standard(s).

A handwritten signature in black ink, appearing to read 'Chien Pan', written over a horizontal line.

Vice-President
Certification & Inspection

Certificate No:
01718

Date of Original Issue:
12/01/2006

Date of Last Revision:
-

Date of Expiry:
31/01/2008

This Certificate is part of a full report and should be read in conjunction with it. This Certificate remains the property of PSB Corporation Pte Ltd and shall be returned upon request. The use of this Certificate is subjected to the terms and conditions of the Test Certification Scheme.
Note: This Certificate is not a Certificate of Conformity.

Method of Test:

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

ANSI/BIFMA X5.1-2002 "General-Purpose Office Chairs – Tests"

Results:

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I	Functional load: 890N Proof load: 1334N Duration: 1 min	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
6	Back Strength Test – Static – Type III	Functional load: 667N Proof load: 1112N Duration: 1 min	Passed	No sudden & major change in the structural integrity of the base.
7	Base Test – Static	Loading force: 11.1KN Duration: 1 min Cycles: 2	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
8	Drop Test – Dynamic	Highest seat position: Functional load: 102kg Proof load: 136kg Drop ht: 152mm (6in) Lowest seat position: Functional load: 102kg Proof load: 136kg Drop ht: 152mm (6in)	Passed	No loss of serviceability
9	Swivel Test – Cyclic	Seat load: 102kg Cycles: 60,000 highest position 60,000 lowest position Rate: 5-15 cycles/min	Passed	No loss of serviceability to the tilt mechanism
10	Tilt Mechanism Test – Cyclic	Seat load: 102kg Cycles: 300,000 Rate: 10-30 cycles/min	Passed	No loss of serviceability
11	Seating Durability test – Cyclic			
	- Impact Test	Seat load: 57kg Drop ht: 25mm (1in) Cycles: 100,000 Rate: 10-30 cycles/min	Passed	No loss of serviceability
	- Front Corner Load-Ease Test – Cyclic – Off Center	Seat load: 734N Cycle: 40,000 Rate: 10-30 cycles/min	Passed	

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Results (Con't):

Clause	Test	Parameters	Results	Requirement
12	Stability Tests			
	a) Rear Stability - Locked - Unlocked	Seat weight: 79kg	Passed	Force required for front support to lift off shall be more than: - Type I : 89N - Type II : 89N - Type III : 156N
	b) Front Stability	Vertical Load: 600N Horizontal force: 20N	Passed	Chair shall not tip over
13	Arm Strength Test – Vertical – Static	Functional load: 890N Proof load: 1334N Duration: 1min	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
14	Arm Strength Test – Horizontal – Static	Functional load: 445N Proof load: 667N Duration: 1min	Passed	
15	Back Durability Test – Cyclic – Type I	Seat weight: 102kg Loading force: 445N Cycles: 120,000 Rate: 10-30 cycles/min	Passed	No loss of serviceability
16	Back Durability Test – Cyclic – Type III	Seat weight: 102kg Loading force: 334N Cycles: 120,000 Rate: 10-30 cycles/min	Passed	
17	Caster / Chair Base Durability Test – Cyclic			
	- Pedestal Base Chairs	Seat weight: 102kg Cycles: 2 000 (Obstacles) 98 000 (No obstacles) Rate: 10±2 cycles/min	Passed	No loss of serviceability
	- Chairs with Legs	Seat weight: 102kg Cycles: 2 000 (Obstacles) 98 000 (No obstacles) Rate: 10±2 cycles/min	N/A	No loss of serviceability
	Caster Retention for Each Caster	Applied force: 22N	Passed	No part of castor shall separate from base

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Results (Con't):

Clause	Test	Parameters	Results	Requirement
18	Leg Strength Test – Front & Side Application - Front Load Test - Side Load Test	Functional load: 334N Proof load: 556N Duration: 1 min (each leg) Functional load: 334N Proof load: 512N Duration: 1 min (front and rear leg)	N/A	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
19	Footrest Durability Test – Vertical – Cyclic	Loading force: 890N Cycles: 50,000 Rate: 10-30 cycles/min	N/A	No loss of serviceability
20	Arm Durability Test – Cyclic	Applied force: 400N Cycles: 60,000 Rate: 10-30 cycles/min	Passed	Structural breakage or loss of serviceability shall constitute failure
21	Out Stop Tests for Chairs with Manually Adjustable Seat Depth	Seat weight: 70kg Loading weight: 25kg Cycles: 25	N/A	No loss of serviceability
22	Tablet Arm Static Load Test	Applied load: 68kg Duration: 5 min	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
23	Tablet Arm Load Ease Test – Cyclic	Applied load: 35kg Cycles: 100,000 Rate: 14±6 cycles/min	N/A	No loss of serviceability

Remarks:

N/A – test is not applicable to the chair due to feature not available.


Kelvin Lau
Associate Engineer


Samuel Lew
Engineer
Consumer & Safety Products
Testing Group



Dynamic Office Chair

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This Report is issued under the following conditions:

1. Results of the testing/calibration in the form of a report will be issued immediately after the service has been completed or terminated.
2. Unless otherwise requested, a report shall contain only technical results. Analysis and interpretation of the results and professional opinion and recommendations expressed thereupon, if required, shall be clearly indicated and additional fee paid for, by the Client.
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10. Unless otherwise stated, the tests are carried out in PSB Corporation Pte Ltd, No.1 Science Park Drive Singapore 118221.

May 2005