

# TEST REPORT



Your Ref: -

Date: 3 Jan 2006

Our Ref: 54S054440/KLU

Page: 1 of 6

DID: 6885 1414

Fax: 6779 3903

**NOTE:** This report is issued subject to PSB Corporation's "Terms and Conditions Governing Technical Services". The terms and conditions governing the issue of this report are set out as attached within this report.

## **Subject:**

Testing of office chair submitted by Benithem Sdn. Bhd. on 18 Aug & 14 Nov 2005.

## **Tested For:**

Benithem Sdn. Bhd.  
No. 33, Jalan Industri 1  
Taman Perindustrian Pekan Nanas  
81500 Pekan Nanas  
Pontian, Johor  
West Malaysia  
Tel: 607-6996668  
Fax: 607-6992655  
Attn: Dyphne Wong

## **Date of Test:**

18 Aug 2005 – 30 Dec 2005

## **Description of Sample:**

One piece of office chair as shown in the photograph was received. The following descriptions were given by the client :

Brand/Model/Serial No : Introno / IN650SYNAJ

Country of Origin : Malaysia

KA SL



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



**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



**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



Introno Office Chair

KA SL

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.
3. 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 PSB Corporation approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that PSB Corporation in any way "guarantees" the later performance of the product/equipment.
4. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. PSB Corporation therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
5. Additional copies of the report are available to the Client at an additional fee. No third party can obtain a copy of this report through PSB Corporation, unless the Client has authorised PSB Corporation in writing to do so.
6. PSB Corporation may at its sole discretion add to or amend the conditions of the report at the time of issue of the report and such report and such additions or amendments shall be binding on the Client.
7. All copyright in the report shall remain with PSB Corporation and the Client shall, upon payment of PSB Corporation's fees for the carrying out of the tests/calibrations, be granted a license to use or publish the report to the third parties subject to the terms and conditions herein, provided always that PSB Corporation may at its absolute discretion be entitled to impose such conditions on the license as it sees fit.
8. Nothing in this report shall be interpreted to mean that PSB Corporation has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
9. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to PSB Corporation or to the report or results furnished by PSB Corporation in any advertisements or sales promotion.
10. Unless otherwise stated, the tests are carried out in PSB Corporation Pte Ltd, No.1 Science Park Drive Singapore 118221.

May 2005