TEST REPORT

Report No. 010124050147

DATED: 16 JULY 2024

Client	:	**BENITHEM SDN BHD** PTD 10710, JLN KAMPUNG AIR PUTIH, JLN SAWAH, 81500 PEKAN NANAS, JOHOR, MALAYSIA
Buyer	:	/
Sample Description	:	LAVIE OFFICE CHAIR
Item No.	:	/
SKU No.	:	/
Model / Style	:	/
Production Date	:	05/24
Age Grade	:	/
Manufacturer	:	BENITHEM SDN BHD
Country of Origin	:	MALAYSIA
Country of Destination	:	/
Test Sample Received	:	RECEIVED ON 03/07/2024
Test Period	:	FROM 03/07/2024 TO 16/07/2024

TEST REQUESTED	CONCLUSION	REMARK
ANSI/BIFMA X5.1-2017 – GENERAL-PURPOSE OFFICE CHAIRS - TESTS	**PASS**	/

Remark(s):

The results reported herein have been performed in accordance with the terms of accreditation under the Singapore Accreditation Council.

For technical enquiries or any other concerns, please contact:

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Accredited Laboratory SAC-SINGLAS LA-2019-0739-G

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SAMPLE PHOTOS	
	
	
	

PHYSICAL CHARACTERISTICS:

Overall Dimensions (mm)			
Depth:	638	Weight (kg):	12.8
Width:	638	Seat Height (mm):	442/524
Height:	922/1007	Backrest Length (mm):	530
Arm Length:	210	Backrest Width (mm):	447
Arm Span:	610	Arm Width:	120

TEST RESULT(S):

ANSI/BIFMA X5.1-2017 – General-Purpose Office Chairs - Tests

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I & II	Functional load = 667 N Proof load = 1,001 N Duration = 1 min	PASS	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 = 667 N Proof load = 1,001 N Duration = 1 min	PASS	
7	Drop Test – Dynamic	Highest seat position: Functional load = 102 kg Proof load = 136 kg Drop ht = 152 mm Lowest seat position: Functional load = 102 kg Proof load = 136 kg Drop ht = 152 mm	PASS	Functional load: No loss of serviceability. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable.
8	Swivel Test – Cyclic	Seat load = 122 kg Total cycles = 120,000 • 60,000 highest position • 60,000 lowest position Rate = 5 - 15 cycles/min	PASS	No loss of serviceability.
9	Tilt Mechanism Test – Cyclic	Chair height: Mid-point Seat load = 109 kg Cycles = 300,000 Rate = 10 - 30 cycles/min	PASS	No loss of serviceability to the tilt mechanism.

TEST RESULT(S): (Continued)

Clause	Test	Parameters	Results	Requirement
10	Seating Durability Tests – Cyclic a) Impact Test	Chair height: Mid-point Unlocked Seat load = 57 kg Drop ht = 36 mm Cycles = 100,000 Rate = 10 - 30 cycles/min	PASS	No loss of serviceability. If applicable, the chair base (center structure) shall not touch the test platform as a result of the impact loads.
	b) Front Corner Load-Ease Test – Cyclic – Off Center	Chair height: Mid-point Seat load = 890 N Cycle = 40,000 Rate = 10 - 30 cycles/min	PASS	
11	Stability Tests: a) Rear Stability	i) Type I & II Loading = 13 disks	PASS	Chair shall not tip over.
		ii) Type III Loading = 6 disks Seat height ≤ 710 mm, Force = 0.1964 (1195 - 550) = 127 N	PASS	
	b) Front Stability	Vertical Load = 61kg Horizontal force = 20 N	PASS	
12	Arm Strength Test – Vertical – Static	Functional load = 750 N Duration = 1 min Proof load = 1,125 N Duration = 15 sec	PASS	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.
13	Arm Strength Test – Horizontal – Static	Functional load = 445 N Duration = 1 min Proof load = 667 N Duration = 15 sec	PASS	Functional load: No loss of serviceability. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable.
14	Back Durability Test – Cyclic – Type I	Seat weight = 109 kg Loading force = 445 N Cycles = 120,000 Rate = 10 - 30 cycles/min	NA	No loss of serviceability.
15	Back Durability Test – Cyclic – Type II & III	Seat weight = 109 kg Loading force = 334 N Cycles = 120,000 Rate = 10 - 30 cycles/min	PASS	

TEST RESULT(S): (Continued)

Clause	Test	Parameters	Results	Requirement
16	Caster / Chair Base Durability Test – Cyclic - Pedestal Base Chairs	Total load with chair weight = 138 kg Cycles: 2,000 (Obstacles) 98,000 (No obstacles) Rate = 10 ± 2 cycles/min	PASS	No loss of serviceability.
	- Non-pedestal chairs with casters		NA	
	Caster Retention for each caster	Applied force = 22N	PASS	No part of caster shall separate from base.
17	Leg Strength Test – Front & Side Application - Front Load Test	Functional load = 334N Proof load = 503N Duration = 1 min (each front leg)	NA	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 = 334N Proof load = 503N Duration = 1 min (front and rear leg)	NA	
18	Footrest Static Load Test – Vertical	Functional Load, Force, F1 = Footrest adjustment, Force F1 = Force, F2 = Duration =	NA	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.
		Proof Load, Force = Duration =	NA	
19	Footrest Durability Test – Vertical – Cyclic	Loading force = Cycles = Rate =	NA	No loss of serviceability. Adjustable footrest that move more than 25mm in the first 500 cycles shall be considered to have lost their serviceability.
20	Arm Durability Test – Cyclic	Applied force = 400 N Cycles = 60,000 Rate = 10 - 30 cycles/min	PASS	No loss of serviceability.
21	Out Stop Tests for Chairs with Manually Adjustable Seat Depth	Seat weight = 74 kg Loading weight = 25 kg Cycles = 25	PASS	

TEST RESULT(S): (Continued)

Clause	Test	Parameters	Results	Requirement
22	Tablet Arm Static Load Test	Applied load = Duration =	NA	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	Force = Cycles = Rate =	NA	No loss of serviceability.
24	Structural Durability Test – Cyclic	Seat weight = Force = Cycles = Rate =	NA	

Notes:

1. NA: Not applicable as features not available.
2. NT: Not tested.
3. TT: Test terminated due to earlier failure

END OF REPORT