

### No.SDHL2212101967FT

Date: Feb 28, 2023

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FOSHAN SUNLAND FURNITURE CO., LIMITED NO.3, HUAER ROAD, SHAFU SANLIAN INDUSTRIAL PARK, LONGJIANG TOWN, SHUNDE, FOSHAN, GUANGDONG.

Sample Description	: OFFICE CHAIR
Supplier Item No.	: SL-RC02F
Manufacturer	: FOSHAN SUNLAND FURNITURE CO., LIMITED
Country of Origin	: CHINA

As above test item and its relevant information regarding to the submission are provided and confirmed by the applicant. SGS is not liable to either the test item or its relevant information, in terms of the accuracy, suitability, reliability or/and integrity accordingly.

Sample Receiving Date	: Dec 29, 2022
Sample Resubmission Date	: Feb 15, 2023
Test Performing Date	: Dec 29, 2022 to Feb 28, 2023
Test Performed	: Selected test(s) as requested by applicant

### **Test Result Summary**

No.	Test(s) Requested	Result(s)	Comments
1	ANSI/BIFMA X5.1-2017 (R2022)	PASS	/
For further details, please refer to the following page(s)			

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Bill Wang Authorized Signatory





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1f.f<sup>4</sup>BalingEmyeen Industria<sup>1</sup>Pat/Jku 15kmteStumtRed,WasteStedin,Dalang Tem,Stunde,Fotara,Gazodou,Dila 528333 t (86-757)22805888 f (86-757)22805888 g www.sgsgroup.com.cn 中国・广东・集山市廣樓区大良街道办事处五沙廠和高路1号欧洲工业図一号厂房首原 邮编:528333 t (86-757)22805888 f (86-757)22805888 e sgs.china@sgs.com

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### **TESTS AND RESULTS**

### Test Conducted:

ANSI/BIFMA X5.1-2017 (R2022) General-Purpose Office Chairs.

### No. of Sample:

5 pieces. For more sample information and pictures, please refer to the following page.

Chair Type:

Type I. Tilting chair

- Type II. Fixed seat angle, tilting backrest
- Type III. Fixed seat angle, fixed backrest

Test and Requirements	Test Results
5 Backrest Strength Test - Static - Type I and II	
Functional Load	
Force: 667 N (150 lbf.) for one minute.	PASS
Acceptance level: There shall be no loss of serviceability to the chair.	
Proof Load	
Force: 1001 N (225 lbf.) for one minute.	PASS
Acceptance level: There shall be no sudden and major change in the structural integrity	FASS
of the chair. Loss of serviceability is acceptable.	
6 Backrest Strength Test - Static - Type III	
Functional Load	
Force: 667 N (150 lbf.) for one minute.	PASS
Acceptance level: There shall be no loss of serviceability to the chair.	
Proof Load	
Force: 1001 N (225 lbf.) for one minute.	PASS
Acceptance level: There shall be no sudden and major change in the structural integrity	FA33
of the chair. Loss of serviceability is acceptable.	
7 Drop Test – Dynamic	
Functional Load Test	
A test bag weighting 102 kg (225 lb.) shall be raised 152 mm (6 in.) above the	
uncompressed seat and released one time (For chairs with seat height adjustment	PASS
features, tested both in highest and lowest position).	
Acceptance level: There shall be no loss of serviceability.	
Proof Load Test	
A test bag weighting 136 kg (300 lb.) shall be raised 152 mm (6 in.) above the	
uncompressed seat and released one time (For chairs with seat height adjustment	PASS
features, tested both in highest and lowest position).	FA00
Acceptance level: There shall be no sudden and major change in the structural integrity	
of the chair. Loss of serviceability is acceptable.	
8 Swivel Test – Cyclic	
Load on seat: 122 kg (270 lb.)	
Cycles: 120,000	PASS
Rate: Between 5 and 15 rotations per minute.	
Acceptance level: There shall be no loss of serviceability.	



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Test and Requirements	Test Results
9 Tilt Mechanism Test – Cyclic	root noodito
Load on seat: 109 kg (240 lbs.)	
Cycles: 300,000	PASS
Rate: Between 10 and 30 cycles per minute.	FAGO
Acceptance level: There shall be no loss of serviceability to the tilt mechanism.	
10 Seating Durability Tests – Cyclic	
10.3 Impact Test	
Drop weight: 57 kg (125 lb.)	
Drop height: 36 mm (1.4 in.) above the uncompressed surface on the seat	
Cycles: 100,000	PASS
Rate: Between 10 and 30 cycles per minute.	
Acceptance level: There shall be no loss of serviceability to the chair.	
10.4 Front Corner Load-Ease Test – Cyclic – Off-center	
Force: 890 N (200 lbf.)	
Cycles: 40,000	PASS
Rate: Between 10 and 30 cycles per minute.	FAGO
Acceptance level: There shall be no loss of serviceability to the chair.	
11 Stability Tests	
11.3.1 Rear Stability Test for Type III Chairs	
Load the chair with 6 disks.	
• $F = 0.1964 (1195 - H)$ Newton. H is the seat height in mm.	
• $[F = 1.1 (47 - H) pounds force.]. H is the seat height in inches.$	PASS
For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93	FAGO
N (20.9 lbf.) shall be applied.	
Acceptance level: The chair shall not tip over.	
11.3.2 Rear Stability Test for Type I and II Chairs	
Load the chair with 13 disks.	PASS
Acceptance level: The chair shall not tip over.	1 700
11.4 Front Stability	
Load 61 kg (135 lb.) on 60 mm (2.4 in.) from the front center edge and a horizontal	
outward force of 20 N (4.5 lbf.) applied.	PASS
Acceptance level: The chair shall not tip over as the result of the force application.	
12 Arm Strength Test - Vertical – Static	
Functional Load	
Force: 750 N (169 lbf.) for one minute.	
Acceptance level: There shall be no loss of serviceability. For a height adjustable arm,	PASS
failure to hold its height adjustment position to within 6 mm (0.25 in.) from its original set	F AGO
position as the result of the loading is considered a loss of serviceability.	
Proof Load	
Force: 1125 N (253 lbf.) for 15 seconds.	
Acceptance level: There shall be no sudden and major change in the structural integrity	PASS
	FAOO
of the chair. For a height adjustable arm, a sudden drop in height of greater than 25 mm (1 in.) does not meet this requirement. Loss of serviceability is acceptable.	
13 Arm Strength Test - Horizontal – Static	
Functional Load	
	DAGG
Force: 445 N (100 lbf.) for one minute in the outward direction.	PASS
Acceptance level: A functional load applied once shall cause no loss of serviceability.	



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Test and Requirements	Test Results
Proof Load	
Force: 667 N (150 lbf.) for 15 seconds in the outward direction.	DASS
Acceptance level: A proof load applied once shall cause no sudden and major change in	PASS
the structural integrity of the unit. Loss of serviceability is acceptable.	
14 Backrest Durability Test - Cyclic - Type I	
Weight on seat: 109 kg (240 lbs.)	
Load on backrest: 445 N (100 lbf.)	DASS
Cycles: 120,000	PASS
Rate: Between 10 and 30 cycles per minute.	
Acceptance level: There shall be no loss of serviceability.	
15 Backrest Durability Test - Cyclic - Type II and III	
Weight on seat: 109 kg (240 lbs.)	
Load on backrest: 334 N (75 lbf.)	PASS
Cycles: 120,000	FA00
Rate: Between 10 and 30 cycles per minute.	
Acceptance level: There shall be no loss of serviceability.	
16 Caster/Chair Base Durability Test - Cyclic	
16.1 Caster/Chair Base Durability Test for Pedestal Base Chairs	
Load on chair: 122 kg (270 lb.)	
Stroke: 762±50 mm (30±2 in.) of travel	
Cycles: 2,000 cycles over the obstacles and then 98,000 cycles without obstacles.	PASS
Rate: 10 ± 2 cycles per minute	
Acceptance level: There shall be no loss of serviceability. No part of the caster shall	
separate from the chair as a result of the application of the 22 N (5 lbf.) force.	
16.2 Caster/Chair Frame Durability Test for Non-pedestal Chairs with Casters	
Load on chair: 122 kg (270 lb.)	
Stroke: 762±50 mm (30±2 in.) of travel	
Cycles: 2,000 cycles over the obstacles and then 98,000 cycles without obstacles.	N/A
Rate: 10 ± 2 cycles per minute	
Acceptance level: There shall be no loss of serviceability. No part of the caster shall	
separate from the chair as a result of the application of the 22 N (5 lbf.) force.	
17 Leg Strength Test - Front and Side Application	
17.3 Front Load Test	
Functional Load Test	
Force: 334 N (75 lbf.) for one minute.	N/A
Acceptance level: Functional load(s) shall cause no loss of serviceability.	
Proof Load Test	
Force: 503 N (113 lbf.) for one minute.	N/A
Acceptance level: Proof load(s) shall cause no sudden and major change in the	N/A
structural integrity of the chair. Loss of serviceability is acceptable.	
17.4 Side Load Test	
Functional Load Test	
Force: 334 N (75 lbf.) for one minute.	N/A
Acceptance level: Functional load(s) shall cause no loss of serviceability.	
Proof Load Test	
Force: 503 N (113 lbf.) for one minute.	N1/A
Acceptance level: Proof load(s) shall cause no sudden and major change in the	N/A
structural integrity of the chair. Loss of serviceability is acceptable.	
18 Footrest Static Load Test - Vertical	



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Test and Requirements	Test Results
Functional load test	
F <sub>1</sub> : 445 N (100 lbf.) / 890 N (200 lbf.)	
F <sub>2</sub> : 445 N (100 lbf.)	N/A
Time: One minute	
Acceptance level: There shall be no loss of serviceability or sudden loss of footrest	
height.	
Proof load test	
Load: 1334 N (300 lbf.) for one minute Acceptance level: The load applied once shall cause no sudden and major change in the	N/A
structural integrity of the unit. Loss of serviceability is acceptable.	
19 Footrest Durability Test - Vertical – Cyclic	
Force: 890 N (200 lbf.)	
Cycles: 50,000	
Rate: Between 10 and 30 cycles per minute.	N/A
Acceptance level: There shall be no loss of serviceability. Adjustable footrests that move	
more than 25 mm (1 in.) in the first 500 cycles shall be considered to have lost their	
serviceability.	
20 Arm Durability Test – Cyclic	
Force: 400 N (90 lbf.) to each arm initially at a 10 degrees ± 1 degree angle	
simultaneously	PASS
Cycles: 60,000	TAGO
Rate: Between 10 and 30 cycles per minute.	
Acceptance level: There shall be no loss of serviceability to the chair.	
21 Out Stop Tests for Chairs with Manually Adjustable Seat Depth	
Mass on seat: 74 kg (163 lb.)	N1/A
Downward weight: 25 kg (55 lb.)	N/A
Cycles: 25	
Acceptance level: There shall be no loss of serviceability to the unit. 22 Tablet Arm Chair Static Load Test	
Load: 68 kg (150 lb.) for one minute	
Acceptance level: The load applied once shall cause no sudden and major change in the	N/A
structural integrity of the chair. After performing the test, the tablet arm must allow	14/7 4
egress from the unit; other losses of serviceability are acceptable.	
23 Tablet Arm Chair Load Ease Test – Cyclic	
Load: 25 kg (55 lb.)	
Cycles: 100,000	N/A
Rate: 14 ± 6 cycles per minute.	
Acceptance level: There shall be no loss of serviceability to the unit.	
24 Structural Durability Test – Cyclic	
Weight on seat: 109 kg (240 lb.)	
Horizontal force: 334 N (75 lbf.)	N/A
Cycles: 25,000	11/7
Rate: Between 10 and 30 cycles per minute.	
Acceptance level: There shall be no loss of serviceability.	



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Test and Requirements	Test Results
Appendix C Base Test – Static A force of 11,120 N (2500 lbf.) shall be applied for one minute. Remove the force. Apply a second force of 11,120 N (2500 lbf.) for one minute. Acceptance level: There shall be no sudden and major change in the structural integrity of the base. The center column may not touch the test platform during the load applications.	PASS

#### Remark:

- 1. N/A Not applicable; N/R Not requested; N/P Not provided;
- 2. For the sample information and pictures, please refer to the following page.



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# Sample as Received



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View 6





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# **Test Pictures with Details**



Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019.

\*\*\*End of Report\*\*\*

