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FOSHAN SHUNDE TANLIN FURNITURE CO.,LTD
NO.12 LIANXIN ROAD,WANGGANG VILLAGE COMMITTEE,LONGJIANG TOWN,
SHUNDE DISTRICT,FOSHAN CITY,GUANGDONG,CHINA

Sample Description : OFFICE NET CHAIR

Item No. : A92

Manufacturer : FOSHAN SHUNDE TANLIN FURNITURE CO.,LTD

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 : Jun 25, 2021
Sample 1st Resubmission Date : Aug 04, 2021
Sample 2nd Resubmission Date : Aug 30, 2021

Test Performing Date : Jun 28, 2021 to Sep 02, 2021

Test Performed : Selected test(s) as requested by applicant

## **Test Result Summary**

Test(s) Requested	Result(s)	Comments
ANSI/BIFMA X5.1-2017 (Type I, III)	PASS	1
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Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Mars Leury

Marco Leung Authorized Signatory





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### **TESTS AND RESULTS**

# Test Conducted:

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

## No. of Sample:

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

Chair Type: Type I, III.

Test and Requirements	Test Results
Safety, Durability and Structural Adequacy	
5 Backrest Strength Test - Static - Type I and II	
5.4.1 Functional Load  There shall be no loss of serviceability to the chair when 667 N (150 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 70 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 70 degrees ± 10 degrees throughout the loading of the backrest.	PASS
5.4.2 Proof Load  There shall be no sudden and major change in the structural integrity of the chair, loss of serviceability is acceptable, when 1001 N (225 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 70 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 70 degrees ± 10 degrees throughout the loading of the backrest.	PASS
6 Backrest Strength Test - Static - Type III	
6.4.1 Functional Load  There shall be no loss of serviceability to the chair when 667 N (150 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS
6.4.2 Proof Load  There shall be no sudden and major change in the structural integrity of the chair, loss of serviceability is acceptable, when 1001 N (225 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS
7 Drop Test - Dynamic	
7.4.1 Functional Load Test  There shall be no loss of serviceability when a test bag weighing 102 kg (225 lb.) is free fell from 152 mm (6 in.) above the uncompressed seat to the specified position on seat. Remove the bag, and set height to its lowest position and repeat the test for chairs with seat height adjustment features.	PASS



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Test and Requirements	Test Results
7.4.2 Proof Load Test  There shall be no sudden and major change in the structural integrity of the chair. Loss of serviceability is acceptable when a test bag weighing 136 kg (300 lb.) is free fell from 152 mm (6 in.) above the uncompressed seat to the specified position on seat. Remove the bag, and set height to its lowest position and repeat the test for chairs with seat height adjustment features.	PASS
8 Swivel Test – Cyclic There shall be no loss of serviceability after 60,000cycles of rotation (360°) at a rate between 5 and 15 rotations per minute under a 122 kg (270 lb.) load on the seat. If the seat height is adjustable set the height to its lowest position, for all chairs, continue the test for an additional 60,000 cycles to a total of 120,000 cycles.	PASS
9 Tilt Mechanism Test – Cyclic There shall be no loss of serviceability to the tilt mechanism after 300,000cycles at a rate between 10 and 30 cycles per minute under a 109kg (240lbs.) load to the center of the seat.  Note: This test shall be performed on Type I and Type II chairs with tilting backrests.	PASS
10 Seating Durability Tests – Cyclic 10.3 Impact Test	
There shall be no loss of serviceability to the chair after a test bag weighing 57kg (125lbs.) is free fell from 36 mm (1.4 in.) above the uncompressed seat to the specified position on seat for 100,000 cycles. The drop height and/or seat height shall be adjusted during the test if the drop height changes by more than 13 mm (0.5 in.). The cycling device shall be set at a rate between 10 and 30 cycles per minute. Note: Chairs with less than 44 mm (1.75 in.) of cushioning materials in the seat shall have foam added to bring total cushioning thickness to 50 mm $\pm$ 6 mm (2 in. $\pm$ 0.25 in.). Any additional foam added to the top of the seat shall have a 25% Indentation Force Deflection (IFD) of 200 N $\pm$ 22 N (45 lbf. $\pm$ 5 lbf.). Flexible seat surfaces (i.e., mesh, flexible plastic, etc.) are not considered cushioning materials.	PASS
10.4 Front Corner Load-Ease Test – Cyclic – Off-center After completing the impact test, alternately apply a load of 890 N (200 lbf.) through a 203 mm ± 13 mm (8 in. ± 0.51 in.) diameter loading device at one front corner flush to each structural edge at a rate of 10 to 30 cycles per minute for 20,000 cycles. Reposition the load to the other front corner, and perform the test for an additional 20,000 cycles. There shall be no loss of serviceability to the chair after completion of both the impact and load-ease tests. If applicable, the chair base (center structure) shall not touch the test platform as a result of the impact loads. Note: Applying the loads in an alternating sequence to attain a total of 40,000 cycles is an acceptable method of performing this test.	PASS



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Test and Requirements	Test Results
Place a support fixture made of a 1.5 mm ± 0.15 mm (0.060 in. ± 0.006 in.) thick polypropylene, 356 mm (14 in.) wide and 711 mm (28 in.) tall against the chair back so that it approximates the contour of the back. Load the chair with 6 disks (10 kg each). Place the first disk on the seat using the Template from Appendix G. As each disk is added to the stack slide it along the lower disk until it contacts the support fixture. Apply a rearward force parallel to the top surface of the highest disk. The location of the force application is 6 mm (0.25 in.) from the top of the disk. For chairs with seat height (as measured at the front of the bottom of the lowest disk when all disks are in the chair) less than 710 mm (28.0 in.), calculate the force as follows:  • [F = 1.1 (47 – H) pounds force.]. H is the seat height in inches.  For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93 N (20.9 lbf.) shall be applied.  The chair shall not tip over.	PASS
11.3.2 Rear Stability Test for Type I and II Chairs  Place a support fixture made of a 1.5 mm ± 0.15 mm (0.060 in. ± 0.006 in.) thick  polypropylene, 356 mm (14 in.) wide and 711 mm (28 in.) tall against the chair back so  that it approximates the contour of the back. Load the chair with 13 disks. Place the  first disk on the seat using the Template from Appendix G. As each disk is added to the  stack slide it along the lower disk until it contacts the support fixture. If the chair does  not tip over and the tilt mechanism does not tilt to its most rearward position (i.e., at its  tilt stop) when the disks are placed in the chair, the chair shall also be tested according  to 11.3.1 with the chair in the unlocked position.  The chair shall not tip over.	PASS
11.4 Front Stability  Test Procedure  Apply a vertical load of 61kg (135 lbf.), through a 200 mm (7.87 in.) diameter disk, the center of which is 60 mm (2.4 in.) from the front center edge of the load-bearing surface of the seat. Apply a horizontal force of 20 N (4.5 lbf.) at the same height that the vertical force is applied. The force shall be coincident with the side-to-side centerline of the seat.  Test Procedure - Alternate  This alternate method may be used on chairs that have a seat surface that will support the stability loading fixture without the use of the front-stability loading disk(i.e., hard surfaced seats or seats with minimal cushion).  Apply a vertical load of 61kg (135 lbf.), by means of the front stability loading fixture at a point 60 mm (2.4 in.) from the front center edge of the load-bearing surface of the chair. Apply a horizontal force of 20 N (4.5 lbf.) at the same height that the vertical force is applied. The force shall be coincident with the side-to-side centerline of the seat.	PASS



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Test and Requirements	Test Results
Apply an initially vertical pull force of 750N (169lbs.) to the load adapter which is 127 mm (5 in.) long and at least as wide as the width of the arm shall be attached to the top of the arm rest structure such that the load will be applied at the apparent weakest point that is forward of the chair backrest, for one (1) minute.  There shall be no loss of serviceability. For a height adjustable arm, failure to hold its height adjustment position to within 6 mm (0.25 in.) from its original set position as the result of the loading is considered a loss of serviceability.	PASS
12.4.2 Proof Load  Apply an initially vertical pull force of 1125N (253 lbs.) to the load adapter which is 127 mm (5 in.) long and at least as wide as the width of the arm shall be attached to the top of the arm rest structure such that the load will be applied at the apparent weakest point that is forward of the chair backrest, for 15 seconds.  There shall be no sudden and major change in the structural integrity 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.	PASS
13 Arm Strength Test - Horizontal - Static	
13.4.1 Functional Load  Apply an initially horizontal pull force of 445 N (100 lbf.) to the load adapter which is a loading device or strap, not greater than 25 mm (1 in.) in horizontal width, shall be attached to the arm so that the load is initially applied horizontally to the armrest structure at the apparent weakest point (for armrests that pivot in the horizontal plane, apply the load at the pivot point), for one (1) minute in the outward direction.  A functional load applied once shall cause no loss of serviceability.	PASS
13.4.2 Proof Load  Apply an initially horizontal pull force of 667 N (150 lbf.) to the load adapter which is a loading device or strap, not greater than 25 mm (1 in.) in horizontal width, shall be attached to the arm so that the load is initially applied horizontally to the armrest structure at the apparent weakest point (for armrests that pivot in the horizontal plane, apply the load at the pivot point), for 15 seconds in the outward direction.  A proof load applied once shall cause no sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable.	PASS
14 Backrest Durability Test - Cyclic - Type I  A weight of 109 kg (240 lb.) shall be secured in the center of the seat. Apply a 445 N (100 lbf.) total force to the backrest at the specified position at a rate between 10 and 30 cycles per minute.  For chairs with backrest widths less than or equal to 406 mm (16 in.) at the height of the loading point, apply the load to the backrest for 120,000 cycles.  For chairs with backrest widths greater than 406 mm (16 in.) at the height of the loading point, apply the load to the backrest for 80,000 cycles + 20,000 cycles at the position 102 mm (4 in.) to the right of the vertical centerline + 20,000 cycles at the position 102 mm (4 in.) to the left of the vertical centerline.  There shall be no loss of serviceability.  Note: With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS



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# SAMPLE INFORMATION AND PICTURES

Weight: 17.20 kg

Overall Dimensions: 690 mm D x 710 mm W x (1170~1280) mm H

Other Dimensions: Base radius 345 mm

## Sample as Received











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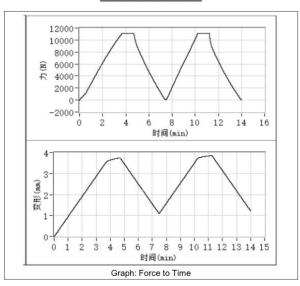
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## **Test Pictures with Details**



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



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