Test Report

No.: SDHL2006007487FT Date: [redacted]

[redacted]

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description	:	GAS SPRING
Supplier Item No.	:	GAS SPRING CLASS3
Sample Receiving Date	:	[redacted]
Test Performing Date	:	[redacted]

Test Result Summary

Test(s) Requested	Result(s)
Clause 5, 6, 7, 8, 10.3 and 14 of ANSI/BIFMA X5.1-2017	PASS

Summary:

1. For further details, please refer to the following page(s).

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

scan to see the report
SDHL2006007487FT

Bill Wang
Approved signatory

SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch Hardlines

1/F,1st Building,European Industrial Park,No.1 Shunhe South Road,Wusha Section,Dailang Town,Shunde,Foshan,Guangdong,China 528333 t (86-757)22805888 f (86-757)22805858 www.sgsgroup.com.cn
中国·广东·佛山市顺德区大良街道办事处五沙顺和南路1号欧洲工业园一号厂房首层 邮编：528333 t (86-757)22805888 f (86-757)22805858 e sgs.china@sgs.com

TESTS AND RESULTS

Test Conducted:
Clause 5, 6, 7, 8, 10.3 and 14 of ANSI/BIFMA X5.1-2017 General-Purpose Office Chairs – Tests.

No. of Sample:
10 pieces. For more sample information and pictures, please refer to the following page.

Test and Requirements	Test Results
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
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

Test and Requirements	Test Results
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
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 ± 6 mm (2 in. ± 0.25 in.). Any additional foam added to the top of the seat shall have a 25% Indentation Force Deflection (IFD) of 200 N ± 22 N (45 lbf. ± 5 lbf.). Flexible seat surfaces (i.e., mesh, flexible plastic, etc.) are not considered cushioning materials.*	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

Remark:

1. The applicant submitted the gas spring only, the other components needed in the test are provided by lab;
2. For the sample information and pictures, please refer to the following page.

SAMPLE INFORMATION AND PICTURES

Weight: 1.00 kg

Overall Dimensions: Φ50.10 mm x (260~355) mm L

Other Dimensions: /

Sample as Received

View 1

View 2

View 3

View 4

End of Report

SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch Hardlines
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中国·广东·佛山市顺德区大良街道办事处五沙顺和南路1号欧洲工业园一号厂房首层 邮编: 528333 t (86-757)22805888 f (86-757)22805858 e sgs.china@sgs.com