

## Test Report

No.: SDHL1807017324FT

Date: Oct.17, 2018

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

Sample Description : OFFICE CHAIR  
 Style / Item No. : APOLLO ZM-311BL  
 Sample Receiving Date : Jul.30, 2018  
 Sample 1<sup>st</sup> Resubmission Date : Sep.03, 2018  
 Sample 2<sup>nd</sup> Resubmission Date : Oct.11, 2018  
 Test Performing Date : Jul.30, 2018 to Oct.17, 2018

### Test Result Summary

Test(s) Requested	Result(s)
Partial tests of EN 1335-2:2009 & EN 1335-3:2009/AC:2009	PASS
<b>Summary:</b>	
1. For further details, please refer to the following page(s).	

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



Bill Wang  
 Approved signatory



SGS-CSTC Inspection & Testing Services Co., Ltd.  
 Shunde Branch

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 中国·广东·佛山市顺德区大良街道办事处五沙和南路1号欧洲工业园一号楼首层 邮编: 528333 t (86-757) 22805888 f (86-757) 22805858 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

**TESTS AND RESULTS**
**Test Conducted:**

Partial tests of EN 1335-2:2009 Office furniture-office work chair - part 2: Safety requirements  
Partial tests of EN 1335-3:2009/AC:2009 Office furniture-office work chair - part 3: Test methods

**Test Condition:**

The following test program was conducted in a laboratory environment maintained at 15°C to 25°C and 50%±5 RH. The sample was individually tested after conditioning in the test environment for at least 24 hours prior to conducting the test.

The complete detailed procedures may be found in the referenced specification and are only summarized herein. Unless otherwise specified, the tests are carried out in the following order on the same sample.

**No. of Sample:**

1 piece (Sample 1). For more sample information and pictures, please refer to the following page.

Test	Test Description and Requirements	Test Results
<b>EN 1335-2:2009, Clause 4.1 General design requirements</b>		
EN 1335-2:2009 Clause 4.1.1	<b><i>Corners and edges, trapping, pinching and shearing</i></b> All parts of the chair with which the user comes into contact during intended use, shall be so designed that physical injury and damage to property are avoided. These requirements are met when: a) the safety distance of accessible movable parts is either ≤ 8 mm or ≥ 25 mm in any position during movement; b) accessible corners are rounded with minimum 2 mm radius; c) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded with minimum 2 mm radius; d) the edges of handles are rounded with minimum 2 mm radius in the direction of the force applied; e) all other edges are free from burrs and rounded or chamfered; f) the ends of accessible hollow components are closed or capped.	PASS
EN 1335-2:2009 Clause 4.1.2	<b><i>Adjusting devices</i></b> Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall be possible to operate the adjusting device from sitting position in the chair.	PASS
EN 1335-2:2009 Clause 4.1.3	<b><i>Connections</i></b> It shall not be possible for any load bearing part of the chair to come loose unintentionally.	PASS
EN 1335-2:2009 Clause 4.1.4	<b><i>Avoidance of soiling</i></b> All parts which are lubricated to assist sliding (greasing, lubricating, etc.) shall be designed to protect users from lubricant stains when in normal use.	PASS



SGS-OSTC (Shunde) Testing Services Co., Ltd.  
Shunde Branch Head Office

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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号欧洲工业园一号楼首层 邮编: 528333 t (86-757)22805888 f (86-757)22805858 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



Test	Test Description and Requirements	Test Results
EN 1335-2:2009 Clause 5	<b>Information for use</b> Each chair shall be accompanied by information for use in the language of the country in which it will be delivered to the end user. It shall contain at least the following details: a) information regarding the intended use; b) information regarding possible adjustments and chair type (see EN 1335-1:2000); c) instruction for operating the adjusting mechanisms; d) instruction for the care and maintenance of the chair; e) information regarding all adjustments; f) information for chairs with seat height adjustments with energy accumulators that only trained personnel may replace or repair seat height adjustment components with energy accumulators; g) information on the choice of castors in relation to the floor surface.	N/R
<b>Test Details for Stability, Rolling resistance of the unloaded chair, Strength and durability</b>		
EN 1335-3:2009 Clause 7.2.1	<b>Seat front edge static load test</b> Position the smaller seat loading pad at loading point "F" or "J". Apply a vertical downward force 1600N through the centre of the loading pad. Number of cycles: 10 cycles	PASS
EN 1335-3:2009 Clause 7.2.3	<b>Arm rest downward static load test – central</b> The arm rests shall be loaded vertically by means of the local loading pads. The loading points shall be at the mid point of the arm rest length and centred side to side. Apply the force 750N to both arm rests simultaneously for 5 cycles.	PASS
EN 1335-3:2009 Clause 7.1.1	<b>Front edge overturning</b> Do not position the chair with the stops against the supporting points. Fix the strap to the chair, i.e. the force is applied at the point on the front edge that is furthest from the axis of rotation, and allows the mass 27kg to hang freely.	PASS
EN 1335-3:2009 Clause 7.1.2	<b>Forwards overturning</b> Position the chair with two adjacent supporting points on the front against the stops. Apply by means of the stability loading device a vertical force 600N acting 60 mm from the front edge of the load bearing structure of the seat at those points most likely to result in overturning. Apply for at least 5 s a horizontal outwards force 20N from the point on the seat surface where the vertical force is applied.	PASS
EN 1335-3:2009 Clause 7.1.6	<b>Rearwards overturning for chairs without back rest inclination</b> Position the chair with two adjacent supporting points on the back against the stops. When an independent lumbar adjustment is fitted it shall be set in the most adverse configuration. A vertical force 600N shall be applied at point "A" and a horizontal force 192N shall be applied at point "B". If the back rest pad is pivoting around a horizontal axis above the height of the seat and is free to move, the horizontal force shall be applied on the axis. If height adjustable, the axis shall be set as close as possible to 300 mm above point "A".	PASS



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Shunde Branch, China

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Test	Test Description and Requirements	Test Results
EN 1335-3:2009 Clause 7.1.7	<b>Rearwards overturning for chairs with adjustable back rest inclination</b> Do not position the chair with the supporting points against the stops. When an independent lumbar adjustment is fitted it shall be set in the most adverse configuration. Load the chair with 13 discs so that the discs are firmly settled against the back rest. If the height of the stack of discs exceeds the height of the back rest, prevent the upper discs from sliding off by the use of a light support.	PASS
EN 1335-3:2009 Clause 7.2.3	<b>Arm rest downward static load test – central</b> The arm rests shall be loaded vertically by means of the local loading pads. The loading points shall be at the mid point of the arm rest length and centred side to side. Apply the force 900N to both arm rests simultaneously for 5 cycles.	PASS
EN 1335-3:2009 Clause 7.4	<b>Rolling resistance of the unloaded chair</b> The chair shall be placed on the test surface and shall be pushed or pulled over a distance of at least 550 mm. A speed of $(50 \pm 5)$ mm/s shall be maintained over the measuring distance. The force shall be applied at a height of $(200 \pm 50)$ mm above the test surface. Record the force used to push or to pull the chair over the distance from 250 mm to 500 mm as the rolling resistance. The Rolling resistance shall be $\geq 12$ N.	PASS
<b>Additional Function Tests: No loss of serviceability after tested.</b>		
EN 1335-3:2009 Clause 7.2.4	<b>Arm rest downward static load test – front</b> The arm rests shall be loaded vertically by means of the local loading pads. The loading points shall be 75 mm from the front edge and centred side to side. Apply the force 450N to both arm rests simultaneously. Number of cycles: 5 cycles.	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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SGS CSTC (Shunde) Technical Service Co., Ltd.  
Shunde Branch

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### SAMPLE INFORMATION AND PICTURES

**Weight:** 19.0 kg

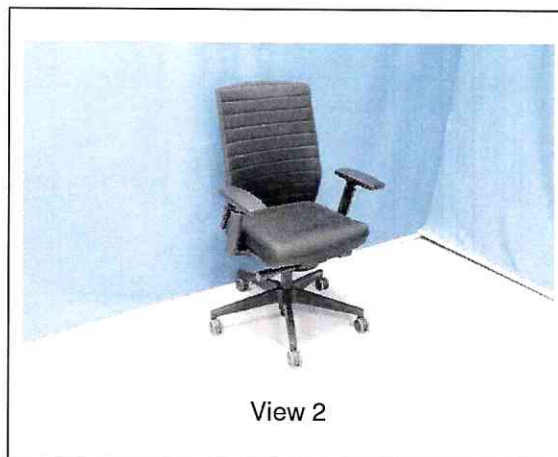
**Overall Dimensions:** 702~705 mm D x 725 mm W x 978~1190 mm H

**Other Dimensions:** Base radius, 350 mm

#### Sample as Received



View 1



View 2



View 3



View 4

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



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