

Test Report

No.: 64.190.23.1697.01-00

Dated: 2023-08-30



Applicant:

Address:

Sample Submission:

The samples were submitted by applicant and identified.

Product Name:

Glory Chair

Order No.:

/

Identification/Style No.:

GL-AHS

Manufacturer:

Country of Origin:

/

Buyer:

/

Export to:

/

Receipt Date of Sample:

2023-06-07

Date of Testing:

From 2023-06-07 to 2023-06-30

Test Result:

Refer to the data listed in following pages

Test Specification(s) or Test Item(s):

Conclusions:

- | | | |
|----|--|-------------|
| 1. | EN 1335-1:2020+A1:2022 Office furniture—Office work chair—Part 1: Dimensions—Determination of dimensions | <u>Pass</u> |
| 2. | EN 1335-2:2018 Office furniture—Office work chair—Part 2: Safety requirements | <u>Pass</u> |

Hardline Laboratory

TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch Testing Center

Tested By: _____

Reviewed By:

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Description of the test subject:

1	Product Description	Glory Chair
2	Dimensions / Weight	H x W x D (mm): 1027~1347x 740 x 722~970 Weight (kg): 18.1
Front view		Side view
		
Back view		Bottom view
		

Sample preparation: the sample was stored in indoor ambient conditions for 24h

Test condition: 24°C 56%RH

Test Results:

1. EN 1335-1:2020+A1:2022 Office furniture—Office work chair—Part 1: Dimensions— Determination of dimensions

Clause	Requirement -Test	Measuring result- Remark	Verdict
7	Measurement methods and procedures The chair shall be set up as specified in ISO 24496:2021, 6.2.1. The CMD shall be placed in the chair as specified in ISO 24496:2021, 6.2.2 and 6.2.3 The chair dimensions shall be determined in the sequence specified in Table 1.		
8	Dimensional requirements	Dimension measured was based on Type C data	/
Table 2—Dimensional requirements			
a	Seat height and sitting height	Seat height: 430~526mm Sitting height: 419~505mm	P
b	Adjustable depth of the seat	425~472mm	P
	Fixed depth of the seat	Adjustable depth	N/A
f	Adjustable height of lumbar support	170~200mm	P
	Fixed height of lumbar support	Adjustable lumbar support	N/A
q	Maximum distance from the backrest to the front of the armrests	289mm	P
r	Hip breadth clearance when armrests are in widest position	463mm	P
z	Adjustable clear distance between armrest	398~513mm	P
	Fixed clear distance between armrest	Adjustable armrests	N/A
p	Height of armrests adjustable	188~260mm	P
	Height of armrests not adjustable	Adjustable armrests	N/A
d	Seat pad width	463mm	P
c	Seat pad depth	442mm	P
h	Backrest height	613mm	P
j	Backrest width	480mm	P
k	Radius of backrest	1342mm	P
n	Armrest length	258mm	P
o	Armrest width	100mm	P
s	Offset of the underframe	383mm	P
Table 3—Angle requirements			
γ	Angle between seat and back	96.65°~112.25°	P
l	Backrest inclination range	27.7°	P
e	Seat pad angle adjustable	-2°~14.9°	P
	Minimum adjustment range	12.9°	P
	Seat pad angle fixed	-2°	P
Annex C Dimensions for neck rests and headrests			
x	Height of adjustable neck rest or head rest	662~760mm	P
	Height of fixed neck rest or head rest	Without neck rest or head rest	N/A

Table 2—Dimensional requirements

Table 2 — Dimensional requirements

Dimensions in millimetres

Dimensions in millimetres

		Type Ax					Type A					Type B					Type C				
		Allow (-)	Min.	Max.	Allow (+)	Minimum range	Allow (-)	Min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range
a ^{ab}	Seat height and sitting height *	yes	400	540	yes	160	yes	400	520	yes	130	yes	420	510	yes	100	yes	430	480	yes	80
b	Adjustable depth of the seat	yes	380	430	yes	70	yes	425	450	yes	70	yes	425	445	yes	50	yes	425	-	yes	-
	Fixed depth of the seat	no					no					no	425	485	no	fixed	no	425	-	yes	fixed
f	Adjustable height of lumbar support	yes	170	300	yes	Minimum 70 within the range	yes	170	300	yes	Minimum 70 within the range	yes	170	300	yes	Minimum 50 within the range	yes	170	300	yes	-
	Fixed height of lumbar support	no					no					no	170	300	no	-	no	170	300	no	-
q ^d	Maximum distance from the backrest to the front of the armrests	yes	-	200	no	-	yes	-	300	no	-	yes	-	350	no	-	yes	-	400	no	-

		Type Ax					Type A					Type B					Type C				
		Allow (-)	Min.	Max.	Allow (+)	Minimum range	Allow (-)	Min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range
r ^e	Hip breadth clearance when armrests are in widest position	no	480	-	yes	-	no	480	-	yes	-	no	460	-	yes	-	no	460	-	yes	-
z ^{ef}	Adjustable clear distance between armrest pads	yes	410	510	yes	-	yes	410	510	yes	-	yes	460	510	yes	-	yes	460	510	yes	-
	Fixed clear distance between armrest pads	no					no					no	460	510	no	-	no	460	-	yes	-
p	Height of armrests adjustable	yes	200	290	yes	100	yes	200	290	yes	100	yes	225	250	yes	50	yes	200	250	yes	-
	Height of armrests not adjustable	no					no					no	225	275	no	-	no	200	250	no	-

		Type Ax					Type A					Type B					Type C				
		Allow (-)	Min.	Max.	Allow (+)	Minimum range	Allow (-)	Min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range
d	Seat pad width	no	400	-	yes	-	no	400	-	yes	-	no	400	-	yes	-	no	400	-	yes	-
c	Seat pad depth	no	380	-	yes	-	no	380	-	yes	-	no	380	-	yes	-	no	380	-	yes	-
h	Backrest height	no	360	-	yes	-	no	360	-	yes	-	no	360	-	yes	-	no	360	-	yes	-
f	Backrest width	no	360	-	yes	-	no	360	-	yes	-	no	360	-	yes	-	no	360	-	yes	-
k	Radius of backrest	no	400	-	yes	-	no	400	-	yes	-	no	400	-	yes	-	no	400	-	yes	-
n	Armrest length	no	150	-	yes	-	no	150	-	yes	-	no	150	-	yes	-	no	150	-	yes	-
o	Armrest width	no	50	-	yes	-	no	50	-	yes	-	no	40	-	yes	-	no	40	-	yes	-
s	Offset of the underframe	yes	-	415	no	-	yes	-	415	no	-	yes	-	415	no	-	yes	-	415	no	-

		Type Ax					Type A					Type B					Type C				
		Allow (-)	Min.	Max.	Allow (+)	Minimum range	Allow (-)	Min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range	Allow (-)	min.	max.	Allow (+)	Minimum range

^a For tall office work chairs the seat height is determined as the vertical distance measured at the front of the seat, from the loaded seat to the floor or top of the foot support. The foot support shall have a minimum diameter of 20 mm or be flat.

^b For type Ax only, the range can be achieved e.g. by using a telescopic gas cylinder or by providing more than one gas cylinder

^c Sitting height is only applicable for chairs with seat pad angles less than 0° (rearwards slope).

^d The distance q shall be measured when the minimum usable armrest area template, 150 mm x 50 mm (Type Ax and Type A) or 150 mm x 40 mm (Type B and Type C), are parallel to the median plane (see 3.9) of the seat.

^e The gap shall be retained across the height adjustment range of the armrests for functional fit.

^f The clear distance z shall be measured when the minimum usable armrest area templates, 150 mm x 50 mm (Type Ax and Type A) or 150 mm x 40 mm (Type B and Type C), are parallel to the median plane of the seat.

(4)



Table 3—Angle requirements

Table 3 — Angle requirements

		Dimensions in degrees																			
		Type Ax					Type A					Type B					Type C				
		Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range
y ^a	Angle between seat and back	no	90	-	yes	-	no	90	-	yes	-	no	90	-	yes	-	no	90	-	yes	-
l	Backrest inclination range	Minimum 15 degrees					Minimum 15 degrees					Minimum 15 degrees									
e ^b	Seat pad angle adjustable	yes	0	-	Yes	-	yes	0	-	Yes	-	yes	-2	-	Yes	-	☒ Yes ☐	-2	-	Yes	-
	Minimum adjustment range	5					5					5					5				
	Seat pad angle fixed	no					no					no	+2	-5	no	-	no	+2	-7	no	-

^a As long as it is possible to achieve an angle of minimum 90° between seat pad and backrest, the requirement is fulfilled.

^b The adjustment range shall include the specified seat pad angle.

^a As long as it is possible to achieve an angle of minimum 90° between seat pad and backrest, the requirement is fulfilled.

^b The adjustment range shall include the specified seat pad angle.

Table C.1 — dimensions for neck rests and headrests

		Dimensions in millimetres																			
		Type Ax					Type A					Type B					Type C				
		Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range	Allow (-)	min	max	Allow (+)	Minimum range
x	Height of adjustable neck rest or head rest	no	550	740	yes	-	no	550	740	yes	-	no	590	-	yes	-	no	590	-	yes	-
	Height of fixed neck rest or head rest	no					no					no	590	-	yes	-	no	590	-	yes	-

2. EN 1335-2:2018 Office furniture—Office work chair—Part 2: Safety requirements

Clause	Requirement -Test	Measuring result- Remark	Verdict
4	Safety requirements		/
4.1	General 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.	This product complied with this item.	P
4.2	Shear and squeeze points		/
4.2.1	Shear and squeeze points under influence of powered mechanisms	Fulfilled	P
4.2.2	Shear and squeeze points during use	Fulfilled	P
4.3	Sequence of testing		/
4.4	Stability tests and requirements When tested according to the below test clause, the seating shall not overturn	See the below sub-clause	P
4.4.1	Corner stability (EN 1022:2018, 7.3.3)	Fulfilled	P
4.4.2	Forward overturning (EN 1022:2018, 7.3.1)	Fulfilled	P
4.4.3	Forward overturning for chair with footrests (EN 1022:2018, 7.3.2)	No footrests	N/A
4.4.4	Sideways overturning for chairs without armrests (EN 1022:2018, 7.3.4)	With armrests	N/A
4.4.5	Sideways overturning for chairs with armrests (EN 1022:2018, 7.3.5.1 and 7.3.5.2)	Fulfilled	P
4.4.6	Rearwards overturning for chairs without back rest inclination and for chairs with adjustable backrest inclination that can be locked (EN 1022:2018, 7.3.6)	Fulfilled	P
4.4.7	Rearwards overturning for chairs with back rest inclination (EN 1022:2018, 7.4)	Fulfilled	P
4.5	Structural safety requirements	Refer to clause 5.2	P
5	Strength and durability	See the below sub-clause	/
5.1.1	Combined seat and back static load test (EN 1728:2012, 7.3)	Seat force F1: 1600 N Back rest force F2: 560 N Cycles: 10	P
5.1.2	Seat front edge static load test (EN 1728:2012, 7.4)	Seat force: 1600 N Cycles: 10	P
5.1.3	Foot rest static load test (EN 1728:2012, 7.8)	Force: 1300 N Cycles: 10	N/A

Clause	Requirement -Test	Measuring result- Remark	Verdict
5.1.4	Seat and back durability (EN 1728:2012, 7.9)	Step 1: Force: 1500 N, at point A Cycles: 120000	P
		Step 2: Force: 1200 N, at point C Force: 320 N, at point B Cycles: 80000	P
		Step 3: Force: 1200 N, at point J Force: 320 N, at point E Cycles: 20000	P
		Step 4: Force: 1200 N, at point F Force: 320 N, at point H Cycles: 20000	P
		Step 5: Force: 1100 N, at point D and G Cycles: 20000	P
5.1.5	Armrests durability (EN 1728:2012, 7.10)	Force: 400 N Cycles: 60000	P
5.1.6.1	Armrest downward static load test – central (before stability test) (EN 1728:2012, 7.5)	Force: 750 N Cycles: 5	P
5.1.6.2	Armrest downward static load test – central (after stability test) (EN 1728:2012, 7.5)	Force: 900 N Cycles: 5	P
5.2	Requirements The strength and durability requirements are fulfilled when, after testing in accordance with Table 2: a) there are no fractures of any member, joint or component; b) there is no loosening of joints intended to be rigid; and c) the chair fulfils its functions after removal of the test loads.	No fractures of any part. No loosening of joints. No function loss.	P
5.3	Rolling resistance test and requirements After test: a). The castors shall be of identical construction b). The rolling resistance shall be ≥ 12 N.	Push force=30 N	P
6	Information for use	Fulfilled.	P

Clause	Requirement -Test	Measuring result- Remark	Verdict
Annex A	Loads, masses and cycles for functional tests - Suggested loads, masses and cycles		
A.1	Arm rest downward static load test – front	Force: 450 N Cycles: 5	P
A.2	Arm rest sideways static load test	Force: 400 N Cycles: 10	P
A.3	Swivel test	Masse M1: 60 kg Masse M2: 35 kg Cycles: 120000	P
A.4	Foot rest durability	Force: 900 N Cycles: 50000	N/A
A.5	Castor and chair base durability	Masse M1: 110 kg Cycles: 36000	P

Remark:

1. Abbreviation: P=Pass; F=Fail; N/A=Not Applicable; N/T=Not Tested; N/R=Not Requested.
2. All the tests were based on the submitted sample.
3. Specific requirement of test report as per clause 7.8.3 of CNAS-CL01-2018 or other accreditation scheme, such as: remark of subcontract information or on-site testing information.

Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.

Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements.

By taking measurement uncertainties into account it might happen that measured values can neither be assessed as PASS nor as FAIL.

-End of Test Report-