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**FLEXIFORM BUSINESS FURNITURE
LIMITED**

1392 Leeds Road
Bradford
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Our Ref: TSSEF84708/A*
Date: 17 July 2019
Delivery Date: 28 January 2019
Test Dates: 29 January 2019 - 12 March 2019

For the attention of Andy Heath

SAMPLE(S) SUBMITTED FOR TEST AND IDENTIFIED BY CUSTOMER AS:

One, Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

TEST(S) AS REQUESTED BY CUSTOMER:

RESULT:

BS EN 16139: 2013 Test Level 1

Pass*

*Excluding Clause 4.4 & Information for Use.

Technical report references marked * indicate this report is supplementary to the previous report with the same reference

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FIRA International
Registered office: 10 Lower Grosvenor Place,
London, UK, SW1W 0EN
Registered in England No: 3181481

TECHNICAL REPORT

DESCRIPTION

Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Supplied by: **FLEXIFORM BUSINESS FURNITURE LIMITED**

Number of Photos: One to Four

All dimensions are approximate.

Quantity	Part Name	Material
1	Seat	Wood 14mm Thick
1	Back	Wood 14mm Thick
2	Arms	Wood 14mm Thick
1	Gas Lift	Metal 50mm Diameter
1	5-Star Base	Metal 700mm Diameter
5	Castors	Plastic 45mm Thick
	Joints	Bolted
	Weight = 8.7kg	

PRECONDITIONING AND MOISTURE CONTENT

FIRA International cannot validate date of manufacture and therefore it is assumed that at least 4 weeks has elapsed between date of manufacture and delivery to FIRA International.

Unless otherwise stated on the first page of this report the sample was stored in indoor ambient conditions for at least the minimum duration as required by this standard prior to test.



TECHNICAL REPORT

Wherever possible timber moisture content is verified prior to test. Where this is not possible the moisture content is assumed to be in the range 8 – 12 %.

BS EN 16139: 2013 - Furniture – Strength, Durability and Safety – Requirements for Contract Seating

The tests required were carried out in accordance with the standard. Where applicable details of the loads applied and their positions of application are retained at FIRA International and are available on request. Structural testing machines are set to operate at the tolerances stated in the standard. Uncertainty of Measurement calculations have not been applied. FIRA International Uncertainty of Measurement values are available on request.

Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Initial Inspection: No apparent faults

Clause	Test	Result
4.1	General requirements (Clause Ref: BS EN 16139: 2013)	
a	accessible corners are rounded or chamfered;	Pass
b	the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded or chamfered;	Pass
c	the edges of handles are rounded or chamfered in the direction of the force applied;	Pass
d	all other edges are free from burrs and rounded or chamfered;	Pass
e	the ends of hollow components are closed or capped.	Pass
	Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided.	Pass
	It shall not be possible for any load bearing part of the seating to come loose unintentionally.	Pass
	All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.	Pass
4.2	Shear and squeeze points	
4.2.1	Shear and squeeze points when setting up and folding.	N/A
4.2.2	Shear and squeeze points under influence of powered mechanism.	Pass
4.2.3	Shear and squeeze points during use.	Pass

In extreme weather conditions the ambient test temperature and/or humidity may fall outside the requirements of the standard. Such changes have not been shown to affect the validity of the results. Details of the ambient conditions at time of test are available on request.



TECHNICAL REPORT

BS EN 16139: 2013 - Furniture – Strength, Durability and Safety – Requirements for Contract Seating

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Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Initial Inspection: No apparent faults

Clause	Test	Result
4.3.3	Stability: non-swivel chairs only (Clause Ref: BS EN 1022: 2005)	
6.2	Forwards overbalancing, all seating.	N/A
6.3	Forwards overturning for seating with footrest.	N/A
6.4	Sideways overbalancing, all seating without arms.	N/A
6.5	Sideways overbalancing, all seating with arms.	N/A
6.6	Rearwards overbalancing, all seating with backs.	N/A
7.3	Tilting chairs.	N/A
7.4	Rocking chairs.	N/A
7.5	Reclining chairs with footrest.	N/A
7.7	Reclining chairs without footrest.	N/A

Clause	Test	Result
4.4	Rolling resistance of the unloaded chair (Clause Ref: EN 16139: 2013)	
a	The rolling resistance is ≥ 12 N when tested according to EN 1335-3:2009, 7.4;	Not Tested
b	All castors are of the same type	Not Tested

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BS EN 16139: 2013 - Furniture – Strength, Durability and Safety – Requirements for Contract Seating

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Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Initial Inspection: No apparent faults

Clause	Test	Result
4.3.2	Stability: swivel chairs only (Clause Ref: BS EN 1335: 2009) *Clause Ref: 1022: 2005	
7.1.1	Front edge overbalancing.	Pass
7.1.2	Forwards overbalancing.	Pass
*6.3	Forwards overturning for seating with footrest.	N/A
7.1.4	Sideways overbalancing, all seating without arms.	N/A
7.1.5	Sideways overbalancing, all seating with arms.	Pass
7.1.6	Rearwards overturning - without back rest inclination.	Pass
7.1.7	Rearwards overturning - with back rest inclination.	N/A

Clause	Test	Result
7	Information for use (Clause Ref: BS EN 16139: 2013)	
a	Information regarding the intended use;	Not Supplied
b	If the chair is fitted with adjusting mechanisms: instruction for operating the adjusting mechanisms;	Not Supplied
c	Assembly instructions, where applicable;	N/A
d	Instruction for care and maintenance of the chair;	Not Supplied
e	If the seating is fitted with castors: information on the choice of castors in relation to the floor surface;	Not Supplied
f	If the seating is fitted with adjustment mechanisms comprising an energy accumulator, an additional note is required pointing out that only instructed personnel may replace and maintain adjustment mechanisms containing energy accumulators.	Not Supplied

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BS EN 16139: 2013 - Furniture – Strength, Durability and Safety – Requirements for Contract Seating

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Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Initial Inspection: No apparent faults

Clause	Test	Result
5.4	Strength and durability (Clause Ref: BS EN 1728: 2012)	
6.4	Seat static load test.	Pass
6.4	Back static load test.	Pass
6.4	Additional seat static load test.	N/A
6.4	Additional back static load test.	N/A
6.5	Seat front edge static load test.	Pass
6.6	Vertical static load on back.	Pass
6.8 & 6.9	Foot rest static load test.	N/A
6.10	Arm rest sideways static load test.	Pass
6.11	Arm rest downwards static load test.	Pass
6.13.1 & 6.13.2	Vertical upwards static load on arm rests.	N/A
6.17	Seat durability test (Seat position 1).	Pass
6.17	Seat durability test (Seat position 2).	N/A
6.17	Back durability test (Back position 1).	Pass
6.17	Back durability test (Back position 2).	N/A
6.17	Additional seat durability test.	N/A
6.17	Additional back durability test.	N/A

In extreme weather conditions the ambient test temperature and/or humidity may fall outside the requirements of the standard. Such changes have not been shown to affect the validity of the results. Details of the ambient conditions at time of test are available on request.



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BS EN 16139: 2013 - Furniture – Strength, Durability and Safety – Requirements for Contract Seating

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Item: Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors

Initial Inspection: No apparent faults

Clause	Test	Result
	(Clause Ref: BS EN 1728: 2012)	
6.18	Seat front edge durability test (ALT).	Pass
6.18	Seat front edge durability test (SLP).	N/A
6.20	Arm rest durability test.	Pass
6.21	Foot rest durability test.	N/A
6.15	Leg forwards static load test.	Pass
6.16	Leg sideways static load test.	Pass
6.24	Seat impact test.	Pass
6.25	Back impact test.	Pass
6.26	Arm impact test.	Pass
6.27.1	Drop test (multiple seating).	N/A
6.14	Auxiliary writing surface static load test.	N/A
6.22	Auxiliary writing surface durability test.	N/A

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CONCLUSION

The Ole Wooden Shell Chair Polished Aluminium 5 Star Base with Castors, as previously described, successfully satisfied the applicable test requirements of BS EN 16139: 2013 Test Level 1 - Excluding Clause 4.4 & Information for Use.

Tested by: S Crisp

Reported by: G Wright & S Hackett

Approved by: L Haines

Section Head - Structural Testing



TECHNICAL REPORT



Photo 1 - Ole Wooden Shell Chair
Polished Aluminium 5 Star Base with
Castors



Photo 2 - Ole Wooden Shell Chair
Polished Aluminium 5 Star Base with
Castors



Photo 3 - Ole Wooden Shell Chair
Polished Aluminium 5 Star Base with
Castors



Photo 4 - Ole Wooden Shell Chair
Polished Aluminium 5 Star Base with
Castors

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