

Johanson Design AB  
Anders Anderssons väg 7  
285 35 MARKARYD  
SWEDEN

## Testing of seating furniture according to EN 16139:2013 (3 appendices)

<b>Customer:</b>	Johanson Design AB
<b>Test object:</b>	Chair
<b>Test object ID:</b>	Frankie
<b>Test method:</b>	EN 16139:2013 Furniture - Strength, durability and safety - Requirements for non-domestic seating. Test level 1
<b>Scope:</b>	Complete test
<b>Date of test:</b>	2015-08-19 – 2015-09-11
<b>Test result:</b>	The tested object passed the test
<b>Reservation:</b>	The test results in this report apply only to the particular Equipment Under Test (EUT)
<b>Test environment:</b>	23 ± 2°C and 50 ± 5% relative humidity
<b>Additional information:</b>	-

### SP Technical Research Institute of Sweden Sustainable Built Environment - Wood Technological Assessment

Performed by

Examined by

Michael Lindblad

Bengt-Åke Andersson

### Appendices

1. Test result (2 pages)
2. Description of test object (1 page)
3. Pictures (1 page)

---

#### SP Technical Research Institute of Sweden

Postal address  
SP  
Box 857  
SE-501 15 BORÅS  
Sweden

Office location  
Västeråsen  
Brinellgatan 4  
SE-504 62 BORÅS

Phone / Fax / E-mail  
+46 10 516 50 00  
+46 33 13 55 02  
info@sp.se

Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

## Appendix 1

### Test result

Abbreviations: N/A = Not applicable  
N/T = Not tested

**Table 1**

1.	General requirements	EN 16139	Result
1.1	Accessible corners shall be rounded or chamfered.	4.1	Passed
1.2	Edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair shall be rounded or chamfered	4.1	Passed
1.3	Edges of handles shall be rounded or chamfered in the direction of the force applied	4.1	N/A
1.4	All other edges shall be free from burrs and rounded or chamfered	4.1	Passed
1.5	Ends of hollow components shall be closed or capped	4.1	Passed
1.6	Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided	4.1	N/A
1.7	It shall not be possible for any load bearing part of the seating to come loose unintentionally	4.1	Passed
1.8	All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use	4.1	N/A
1.9	No shear and squeeze points when setting up and folding	4.2.1	N/A
1.10	No shear and squeeze points under influence of powered mechanism	4.2.2	N/A
1.11	No shear and squeeze points during use	4.2.3	Passed
1.12	Rolling resistance for single seating fitted with castors ( $\geq 12\text{N}$ )	4.4	N/A
1.13	All castor shall be of identical construction	4.4	N/A

**Table 2**

2.	Stability	EN 1022	Result
2.1	Forwards overbalancing	6.2	Passed
2.2	Forwards overturning for seating with footrest	6.3	N/A
2.3	Sideways overbalancing, all seating without arms	6.4	Passed
2.4	Sideways overbalancing, all seating with arms	6.5	N/A
2.5	Rearwards overbalancing, all seating with backs	6.6	Passed

## Appendix 1

**Table 3**

<b>3.</b>	<b>Strength, durability</b>	<b>Reference EN 1728</b>	<b>Cycles</b>	<b>EN 16139 level 1</b>	<b>Result</b>
3.1	Seat and back static load test	6.4	10	Seat: 1600 N Back: 560 N	Passed
3.2	Seat front edge static load test	6.5	10	1300 N	Passed
3.3	Vertical static load on back rests	6.6	10	600 N Seat: 1300 N	Passed
3.4	Foot rest and leg rest static load test	6.8 and 6.9	10	1300 N	N/A
3.5	Arm sideways static load test	6.10	10	400 N	N/A
3.6	Arm downwards static load test	6.11	5	750 N	N/A
3.7	Vertical upwards static load on arm rests for stackable seating	6.13.2	10	250 N	N/A
3.7 Annex B	Vertical upwards static load on arm rests for seating which may be moved when occupied	6.13.1	10	1200 N	N/A
3.8	Seat and back durability test	6.17	100 000	Seat: 1000N Back: 300 N	Passed
3.9	Seat front edge durability test	6.18	50 000	800 N	Passed
3.10	Arm durability test	6.20	30 000	400 N	N/A
3.11	Foot rest durability test	6.21	50 000	1000 N	N/A
3.12	Leg forward static load test	6.15	10	500N Seat: 1000 N	Passed
3.13	Leg sideways static load test	6.16	10	400 N Seat: 1000 N	Passed
3.14	Seat impact test	6.24	10x2	240 mm	Passed
3.15	Back impact test	6.25	10	210 mm/38°	Passed
3.16	Arm impact test	6.26	10	210 mm/38°	N/A
3.17	Auxiliary writing surface static load test	6.14	10	300 N	N/A
3.18	Auxiliary writing surface durability test	6.22	10 000	150 N	N/A

## Appendix 2

**Description of test Object**

Test object ID: Frankie

**Dimensions**

Width: 455 mm

Depth: 490 mm

Height: 825 mm

Seat height: 480 mm

Mass: 6.7 kg

**Components**

Legs: Steel tube Ø 14 mm

Seat: Wooden board with padding

Backrest: Steel tube Ø 8 mm and wooden board with padding

Armrest: -

Footrest: -

Castors: -

Upholstery: Fabric

Sampling: The test object was selected by the customer

Date of arrival at 2015-06-23

SP test laboratory:

Observed defects before testing: No defects

## Appendix 3

### Pictures



Figure 1



Figure 2



Figure 3



Figure 4