

Nordic Comfort Products A/S
P.O. Box 3
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NORWAY

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

Customer:	Nordic Comfort Products A/S
Test object:	Chair
Test object ID:	Rio
Test method:	EN 16139:2013 Furniture - Strength, durability and safety - Requirements for non-domestic seating. Test level 1
Scope:	Complete test
Date of test:	2015-12-01 – 2015-12-17
Test result:	The tested object passed the test
Reservation:	The test results in this report apply only to the particular Equipment Under Test (EUT)
Test environment:	23 ± 2°C and 50 ± 5% relative humidity
Additional information:	-

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

Performed by

Examined by

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Appendices

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

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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 ($\geq 12N$)	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

3.	Strength, durability	Reference EN 1728	Cycles	EN 16139 level 1	Result
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: Rio

Dimensions

Width: 505 mm

Depth: 495 mm

Height: 810 mm

Seat height: 450 mm

Mass: 3.6 kg

Components

Frame/legs: Steel tube Ø 19 mm

Seat: Plastic

Backrest: Plastic

Armrest: -

Footrest: -

Castors: -

Upholstery: -

Sampling: The test object was selected by the customer

Date of arrival at SP test laboratory: 2015-10-21

Observed defects before testing: No defects

Appendix 3

Pictures



Figure 1



Figure 2



Figure 3



Figure 4