



**PROVNINGSRAPPORT**  
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TEST REPORT issued by an Accredited Testing Laboratory



## TEST REPORT

**Number:** 10 - 5945  
**Date:** 2010-05-12  
**Article:** Easy Chair Bone 5020



**Test requested by:** Jan Jismyr, Materia AB Tranås Sweden

**Tests are carried out according to standard:** EN 15373:2007, Test severity 2, Möbelfakta offentlig miljö (MF) and ISO 7173

**Tolerance:** Where not especially specified, the stated test result has a tolerance value within directions for each standard.

**Measurement uncertainty:** Where not especially specified, the measurement uncertainty is from a general point of view within the above tolerance values.

For example: Mass  $\pm 0,5\%$ , Force  $\pm 5\%$ , Linear measure, unloaded furniture  $\pm 1\text{mm}$ , Linear measure, loaded seating furniture  $\pm 2\text{mm}$ .

**Measurement:** All measurements are in mm unless stated otherwise

**Report:** This report relates to sample submitted for test and no other. The report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory

**Discrepancies:** None

Kinnarp 12<sup>th</sup> of May 2010

KINNARPS AB  
Product test facilities

Magnus Carlsson

(Approved by)

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(Tested by)

<b>Item description:</b>	
<b>Date of manufacture:</b>	100413
<b>Date of arrival:</b>	100419
<b>Date of test:</b>	100426 - 100507
<b><u>Materials, construction:</u></b>	
<b>Seat and backrest</b>	Form pressed plywood
<b>Armrests</b>	-
<b>Under frame</b>	Solid steel string

<b>Test description: EN 15373:2007 Annex C</b>		
The table below shows the type of use that might be expected from furniture in relation to three test severities.		
<b>Test severity</b>	<b>Type of Use</b>	<b>Application</b>
1	light	hotel bedroom, church, libraries
2	general	general hotel, café, restaurant, public hall, banks, bars, meeting rooms
3	severe	night-club, police station, transport terminals, hospital, public areas, casino, homes for the elderly, sports changing rooms, prisons, barracks

<b>Dimension description:</b>	1) No requirements only for information		
Overall dimensions			width 760 mm deep 650 mm height 700mm
Weight			9,5 kg
Seat height			450 mm
Sitting height	<b>EN 1335-1</b>	6.1	360 mm
Seat depth		6.2	450 mm
Seat width		6.4	760 mm
Height of arm rest above the seat		6.14	-

Our no	Test and method	Requirements	Test results	Pass/Fail or N/A
<b>1</b>	<b>SAFETY</b> <b>EN 15373:2007</b>			
1.1	Edges of seat, back and arm rests, which are in contact with the user when sitting in the seating 5.1	shall be rounded or chamfered	<i>No remarks</i>	<b>Pass</b>
1.2	All other edges accessible during use shall be free from burrs and/or sharp edges	no rough surfaces, burrs or sharp edges	<i>No remarks</i>	<b>Pass</b>
1.3	End of hollow components	closed or capped	-	<b>N/A</b>
1.4	Movable and adjustable parts designed so	injures and inadvertent operations shall be avoided	-	<b>N/A</b>
1.5	Lubricated parts	not accessible	-	<b>N/A</b>
1.6	Adjustable/connection parts	no chance to come loose	-	<b>N/A</b>
1.7	Shear and squeeze points when setting up and folding 5.2.1	acceptable only during setting up and folding	-	<b>N/A</b>
1.8	Shear and squeeze points created by parts of the seating operated by powered mechanisms 5.2.2	not acceptable	-	<b>N/A</b>
1.9	Shear and squeeze points during normal use 5.2.3	not acceptable	<i>No remarks</i>	<b>Pass</b>
1.10	Safety distances accessible moving parts 3.3.3	≤ 18 or ≥7 mm	-	<b>N/A</b>
<b>2</b>	<b>SAFETY AND STABILITY</b> <b>EN 15373:2007</b> <b>5.3</b>			
	<b>Swivelling chair</b> 5.3.2			
2.1	Front edge overbalancing, 27 kg	no overturning	-	<b>N/A</b>
2.2	Forward Vertical force 600 N	horizontal min. 20 N no overturning	-	<b>N/A</b>
2.3	Sideways without armrests Vertical force 600 N	horizontal min. 20 N no overturning	-	<b>N/A</b>
2.4	Sideways with armrests Vertical force on seat 250 N Vertical force on armrest 350 N	horizontal min. 20 N no overturning	-	<b>N/A</b>

Our no	Test and method	Requirements	Test results	Pass/Fail or N/A
	<u>Rearwards overbalancing</u>			
2.5	Determination of the maximum Off-set of the backrest Vertical mass 75 kg Horizontal force, backrest 315 N or....	< 1.34 x [ t ]	-	N/A
2.6	Chairs without backrest inclination Vertical force 600 N Horizontal force backrest 192 N	no overturning	-	N/A
2.7	Chair with backrest inclination Load 13 discs x 10 kg	no overturning	-	N/A
2.8	Forwards overturning for seating with footrest Vertical force on the footrest 600 N	horizontal min. 20 N no overturning	-	N/A
	<b>Non swivelling chairs</b>			
2.9	Forward force Vertical force 600 N	5.3.3 horizontal min. 20 N no overturning	67N	Pass
2.10	Sideways without arm rests Vertical force 600 N	horizontal min. 20 N no overturning	80N	Pass
2.11	Sideways with arm rests Vertical force on seat 250 N Vertical force on armrest 350 N	horizontal min. 20 N no overturning	-	N/A
2.12	Rearward Vertical force 600 N	horizontal min. 182 N no overturning	210N	Pass
2.13	Forwards overturning for seating with footrest Vertical force on the footrest 600 N	horizontal min. 20 N no overturning	-	N/A
<b>3</b>	<b>Rolling resistance of the unloaded chair</b>			
3.1	Type H for soft floor Type W for hard floor	5.4 ≥ 15 N ≥ 12 N	-	N/A
3.2	Castors	identical construction	-	N/A

Our no	Test and method	Requirements 2)	Test results	Pass/Fail or N/A
<b>4</b>	<b>STRENGTH AND DURABILITY</b> <b>EN 15373:2007 table 1</b>			
4.1	Seat and back static load 10 times vertical force horizontal force	1600 N 560 N	No damage	Pass
4.2	Seat front edge static load 10 times vertical force	1600 N	No damage	Pass
4.3	Vertical static load on back. 10 times vertical force seat load	Annex A.2 600 N 1300 N	No damage	Pass
4.4	Foot rail / foot rest and leg rest static load 10 times force	1300 N	-	N/A
4.5	Arm sideways static load between armrests 10 times horizontal force	600 N	-	N/A
4.6	Arm downwards static load 10 times vertical force	900 N	-	N/A
4.7	Vertical upwards static load on armrests 10 times	Annex A.1 Seat load 1000 N or lift stack	-	N/A
4.8	Seat and back fatigue vertical force horizontal force	100 000 c 1000 N 300 N	No damage	Pass
4.9	Seat front edge fatigue vertical force	50 000 c 1000 N	No damage	Pass
4.10	Arm fatigue force	50 000 c 400 N	-	N/A
4.11	Leg rest fatigue force	50 000 c 1000 N	-	N/A
4.12	Foot rail fatigue force	Annex A.5 50 000 c 1000 N	-	N/A
4.13	Leg forward static load 10 times force seat load	MF 620 N 1300 N	No damage	Pass
4.14	Leg sideways static load test 10 times force seat load	490 N 1300 N	No damage	Pass

Our no	Test and method		Requirements 2)	Test results	Pass/Fail or N/A
4.15	Diagonal static base load	10 times force	500 N	-	N/A
4.16	Seat impact	10 times drop height	240 mm	No damage	Pass
4.17	Back impact pendulum	10 times height of fall	330 mm/48°	No damage	Pass
4.18	Arm impact pendulum	10 times height of fall	330 mm/48°	-	N/A
4.19	Drop test (multiple seating)	2 x 5 times drop height	300 mm	-	N/A
4.20	Auxiliary writing surface static load	10 times force	Annex A.3 300 N	-	N/A
4.21	Auxiliary writing surface fatigue force		Annex A.4 20 000 c 150 N	-	N/A
4.22	Drop test for stacking chairs	10 times drop height	Annex B.1 150 mm	-	N/A
4.23	Backward fall test	5 times	Annex B.2	No damage	Pass
4.24	Drop test from the height of a table	height 5 times / 2 different legs	Annex B.3 600 mm	-	N/A
4.25	Fall against floor (chair level 4)	10 times Non stackable chair Stackable chair	ISO 7173 300 mm 600 mm	No remarks	Pass

**Remarks, comments**

1) Certain dimensions measured according to EN 1335-1 are reported only as information.

**2) Requirements**

No fractures of any member, joint or component.  
No loosening of joints intended to be rigid  
The chair fulfils its functions after removal of the test loads  
The seating fulfils the stability requirements

*End of report*