



PROVNINGSRAPPORT
utfärdad av ackrediterat provningslaboratorium
TEST REPORT issued by an Accredited Testing Laboratory



TEST REPORT

Number: 10 - 6047
Date: 101013
Article: Sofa Element beam



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. parts of EN 15372:2008 level 2

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: Added test for table, EN 15372, vertical static load, vertical durability
Vertical impact test.

Kinnarps 13th of October 2010

KINNARPS AB
Product test facilities

Tomas Ekström
(Approved by)

Susanne Gustafsson
(Tested by)

Item description:	
Date of manufacture:	100615
Date of arrival:	100702
Date of test:	100920 .- 101013
<u>Materials, construction:</u>	
Backrest	Form pressed plywood and steel tube moulded in foam, connected to the seat
Seat	Upholstered plywood.
Table	Compact laminate.
Armrests	Aluminium
Under frame	Rectangular steel beam, solid metal feet.

Test description:	EN 15373:2007 Annex C	
The table below shows the type of use that might be expected from furniture in relation to three test severities.		
Test severity	Type of Use	Application
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

Dimension description:	1) No requirements only for information		
Overall dimensions		width	2350 mm
		deep	660 mm
		height	800 mm
Weight			71 kg
Seat height			460 mm
Sitting height	EN 1335-1	6.1	420 mm
Seat depth		6.2	470 mm
Seat width		6.4	390 mm
Height of arm rest above the seat		6.14	220 mm

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

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
	Non swivelling chairs			
2.9	Forward force Vertical force 600 N	5.3.3 horizontal min. 20 N no overturning	> 200 N	Pass
2.10	Sideways without arm rests Vertical force 600 N	horizontal min. 20 N no overturning	> 200 N	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	> 200 N	Pass
2.12	Rearward Vertical force 600 N	horizontal min. 165 N no overturning	> 300 N	Pass
2.13	Forwards overturning for seating with footrest Vertical force on the footrest 600 N	horizontal min. 20 N no overturning	-	N/A
3	Rolling resistance of the unloaded chair			
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
4	STRENGTH AND DURABILITY EN 15373:2007 table 1			
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	No damage	Pass
4.6	Arm downwards static load 10 times vertical force	900 N	No damage	Pass
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	No damage	Pass
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°	No damage	Pass
4.19	Drop test (multiple seating) 2 x 5 times drop height	300 mm	No damage	Pass
5	Strength and durability for table EN 15372:2008			
5.1	Vertical static load main surface 10 times	1250 N	No damage	Pass
5.2	Vertical fatigue for cantilever or pedestal tables 300 N	15 000 c	No damage	Pass
5.3	Vertical impact for tables without glass in their construction 10 times drop height	180 mm	No damage	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

3) parts of EN 15372:2008 level 2, table test.

End of report