

Handled by, department
Bengt-Åke Andersson
Wood Technology
+46 10 516 54 34, bengt-ake.andersson@sp.se

Lectus Produktion AB
Box 29
383 21 MÖNSTERÅS

Testing of New York stool

1 Introduction

On behalf of Lectus Produktion AB, a New York stool has been tested at SP in accordance with ISO 7173:1989 level 4, user weight 130 kg.

2 Test object

Figure 1 Test object



Frame: Aluminium Ø21 mm
Seat: Fibre glass reinforced plastic fabric
Joints: Steel reinforced moulded aluminium

The test specimen was selected by the customer and arrived at SP 2010.05.21.

SP Technical Research Institute of Sweden

Postal address
SP
Box 857
SE-501 15 BORÅS
Sweden

Office location
Västerås
Brinellgatan 4
Borås

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

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3 Test methods and test procedure

The test was performed according to:

- ISO 7173:1989 Furniture - Chairs and stools - Determination of strength and durability, level 4, user weight 130kg.
- SS-EN 1022 Domestic furniture – Seating – Determination of stability.

Before testing the test specimen was conditioned for one week in a climate of 23°C ± 2°C and 50 ± 5% relative humidity, in accordance with the standard. Testing was carried out in this climate.

The tests methods are explained in table 1-3.

The test was carried out 2010.06.09 – 07.02.

4 Results

Table 1

1.	General requirements	Results
1.1	<u>Components or parts accessible during normal use</u> shall have no burrs, sharp edges or sharp points <i>SS-ENV 12520. Clause.4.1</i>	√
1.2	There shall be no <u>open-ended tubes</u> <i>SS-ENV 12520. Clause.4.1</i>	√
1.3	<u>Shear and squeeze points.</u> The distance between moving parts accessible during normal use shall be kept to ≤ 8 mm or ≥ 25 mm in any position during movement <i>SS-ENV 12520. Clause.4.2</i>	-
1.3.1	<u>Shear and squeeze points when setting up and folding.</u> The requirements in 1.3 are not applicable when shear and squeeze points are created only when setting up and folding <i>SS-ENV 12520. Clause.4.2.1</i>	-
1.3.2	<u>Shear and squeeze points under the influence of powered mechanisms.</u> The requirements in 1.3 are applicable to all moving parts created by parts operated by powered mechanisms, including springs <i>SS-ENV 12520. Clause.4.2.2</i>	-
1.3.3	<u>Shear and squeeze points under body weight</u> Shear and squeeze points as defined in 1.3 are not acceptable if unintentional movement of the parts may occur so that a hazard is created by the weight of the user. <u>Shear and squeeze points</u> shall not be created by normal movements and actions, e.g. attempting to move the seating by lifting the seat or by adjusting the backrest. <i>SS-ENV 12520. Clause.4.2.3</i>	-
1.4	<u>All lubricated parts</u> shall, when in normal use, be designed to protect from contact with the lubricant.	-
1.5	<u>Knock-down furniture / assembly instructions.</u> Parts or components being parts of a knock-down furniture shall be so prepared that the assembly can be done without any difficulties and in a reliable way. When the assembly requires an instruction it shall be easy to understand and instructive. The instruction shall be by a list, a diagram or in another way make it possible to control that all parts or components are supplied.	-

Table 2

2. Stability	Results
2. <u>The seating shall not overturn.</u> The stability requirements shall be fulfilled before and after the tests specified in clause 3 - Strength and durability. <i>SS-EN 1022</i>	√

Table 3

3. Strength and durability	Load point	Cycles	Load	Results
3.1 <u>Seat and back</u> static load test <i>SS-EN 1728.Clause.6.2.1</i>	Seat	10	2080 N	√
3.10 <u>Seat and back</u> – fatigue test <i>SS-EN 1728.Clause.6.7</i> <i>SS-EN 1729.Clause.5.3.2</i>	Seat Back	100 000	1000 N 300 N	√
3.16 <u>Leg/base</u> – Forward static load test <i>SS-EN 1728.Clause.6.12</i>	Base Seat	10	500 N 1300 N	√
3.17 <u>Leg/base</u> – Sideway static load <i>SS-EN 1728.Clause.6.13</i>	Base Sits	10	490 N 1300 N	√
3.19 <u>Seat</u> – Impact test <i>SS-EN 1728.Clause.6.15</i>	Drop height 240 mm	10		√
3.20 <u>Back</u> – Impact test <i>SS-EN 1728.Clause.6.16</i>	Drop height 330 mm	10		√

- √ The test has been completed without any remarks
- ⊗ The requirement is not fulfilled
- Not applicable

5 Conclusion

At the end of the test, the tested piece did not exhibit any faults, fractures or other damage judged to affect its safety.

The requirements regarding strength and durability have been met.

The test results apply solely to the specimen tested.

SP Technical Research Institute of Sweden
Wood Technology



Bengt-Åke Andersson
Technical Officer



Bertil Johansson
Technical Manager

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