

Kloss Design AS  
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Appendices 2  
Initials laha/kvb/hbs

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## Test Report

Material: Model: "Lille Sjriffen"

Type:	Children's chair			Lab.no.:	020611
Length:	532 mm	Width:	442 mm	Height:	756 mm
Weight:	3,5 kg	Plywood thickness	17,60 mm		
Materials:	Plywood with blue high pressure laminate				

Sampling: The test material was sampled by the client and received at the Danish Technological Institute 26-09-2007.

Method: DS/EN 1729-2:2006 Furniture – Chairs and tables for educational institutions – Part 2 Safety requirements and test methods  
Chairs size 0 and 1  
Due to the geometry of the chair the clauses:  
"5.3.1 Strength and durability of seat" and "5.3.6 Impact test of seat" were tested as described in Appendix 1.

Period: The test was carried out in the period 26-009-2007 to 28-09-2007.

Result: Model "Lille Sjriffen" fulfils the requirements of DS/EN 1729-2:2006. Furniture – Chairs and tables for educational institutions – Part 2 Safety requirements and test method.  
Clauses 5.2.1, 5.2.2, 5.2.3.  
Due to the geometry of the chair the clauses 5.3.1, 5.3.6 were tested as described in Appendix 1.

Storage: The test material will be destroyed after 2 months, unless otherwise agreed.

Terms: The test has been performed according to the rear side conditions, which are according to the guidelines laid down by DANAK (The Danish Accreditation). The testing is only valid for the tested specimen. The test report may only be extracted, if the laboratory has approved the extract.

02-10-2007, Danish Technological Institute, Wood and Textile, Taastrup



Lars Hansen



Kasper Bøgelund

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## Test of Model "Lille Sjiraffen" Lab. no.: 020611

ENV 1729-2:2001

### 5.1 Stability

#### 5.2.1 Stability forward. Carried out according to EN 1022:2005 clause 6.2 or 8.2

Loaded according to table 1 in EN 1729-2:2006

Size of chair	Seat loading	Horizontal loading	Result
0 and 1	200 N	20 N	Passed
2	250 N	20 N	
3	350 N	20 N	
4	500 N	20 N	
5	600 N	20 N	
6	600 N	20 N	
7	600 N	20 N	

#### 5.2.2 Stability sideways. Carried out according to EN 1022:2005 clause 6.4 and 8.2

Loaded according to table 2 in EN 1729-2:2006

Size of chair	Seat loading	Horizontal loading	Result
0 and 1	200 N	20 N	Passed
2	250 N	50 N	
3	350 N	60 N	
4	500 N	70 N	
5	600 N	70 N	
6	800 N	90 N	
7	800 N	90 N	

#### 5.2.3 Stability backward. Carried out according to EN 1022:2005 clause 6.6 and 8.5

Loaded according to table 1 in EN 1729-2:2006

Size of chair	Seat load	Point S to seat loading point	Seat to back loading point	Back force	Result
	N	mm	mm	n	
0 and 1	200	120	180	50	Passed
2	250	130	200	70	
3	350	145	250	100	
4	500	160	300	130	
5	600	170	300	180	
6	600	185	300	180	
7	600	185	300	180	

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## Test of Model "Lille Sjiraffen" Lab. no.: 020611

### 5.3.1 Static loading of the seat. Table 4.

Due to the geometry of the chair the seat was loaded with a loading pad of 100 mm in diameter, onto the centre of the seat with the force as described below:

Size of chair	Cycles	Loading	Result
0 and 1	10	1.300 N	Passed
2	10	1.600 N	
3	10	2.000 N	
4	10	2.000 N	
5	10	2.000 N	
6	10	2.000 N	
7	10	2.000 N	

### 5.3.6 Impact Test, Seat: Table 11. (EN 1728:2000 clause 6.15)

Due to the geometry of the chair, the impact test was carried out with a beechwood block with the dimensions: H: 203 mm L: 160 mm W 85 mm Weight 2 kg, placed in the centre of the seat, on top of this 2 pieces of foam were placed, 25 mm polyether foam with an index of hardness of  $1100 \pm 100$  n according to ISO 2439 method A.

Size of chair	Cycles	Drop height	Result
0 and 1	10	180 mm	Passed
2	10	180 mm	
3	10	240 mm	
4	10	240 mm	
5	10	300 mm	
6	10	300 mm	
7	10	300 mm	

### 5.3.9 Drop Test (Annex A)

Size of chair	Cycles	Drop height	Result
All sizes	5	600 mm	Passed

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**Test of Model "Lille Sjiraffen"**  
**Lab. no.: 020611**

Photo:



The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing and calibration at Danish Technological Institute and to the completion of test reports and calibration certificates within the relevant field.

### **Danish Accreditation (DANAK)**

DANAK was established in 1991 in pursuance of the Danish Act No. 394 of 13 June 1990 on the promotion of Trade and Industry.

The requirements to be met by accredited laboratories are laid down in the "Danish Agency for Trade and Industry's ("Erhvervsfremme Styrelsens") Statutory Order on accreditation of laboratories to perform testing etc. and GLP inspection. The statutory order refers to other documents, where the criteria for accreditation are specified further.

The standards DS/EN ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories" and DS/EN 45002 "General criteria for the assessment of testing laboratories" describe fundamental criteria for accreditation. DANAK uses guidance documents to clarify the requirements in the standards, where this is considered to be necessary. These will mainly be drawn up by the "European co-operation of Accreditation (EA)" or the "International Laboratory Accreditation Co-operation (ILAC)" with the purpose of obtaining uniform criteria for accreditation. In addition, DANAK draws up Technical Regulations with specific requirements for accreditation that are not contained in the standards.

In order for a laboratory to be accredited it is, among other things, required:

- that the laboratory and its personnel are not subject to any commercial, financial or other pressures, which might influence their technical judgement

- that the laboratory operates a documented quality system
- that the laboratory has at its disposal all items of equipment, facilities and premises required for correct performance of the service that it is accredited to perform
- that the laboratory management and personnel have technical competence and practical experience in performing the service that they are accredited to perform
- that the laboratory has procedures for traceability and uncertainty calculations
- that accredited testing or calibration is performed in accordance with fully validated and documented methods
- that the laboratory keeps records, which contain sufficient information to permit repetition of the accredited test or calibration
- that the laboratory is subject to surveillance by DANAK on a regular basis
- that the laboratory shall take out an insurance, which covers liability in connection with the performance of accredited services

Reports carrying DANAK's logo are used, when reporting accredited services and show that these have been performed in accordance with the rules for accreditation.