



**DANISH  
TECHNOLOGICAL  
INSTITUTE**

Howe A/S  
Att.: Ruben Tychsen  
Mandal Allé 23  
5500 Middelfart

Order no. 341545A  
Page 1 of 1  
Appendices 2  
Initials laha/pfy/hbs

Gregersensvej  
DK-2630 Taastrup  
Tel. +45 72 20 20 00  
Fax +45 72 20 20 19

info@teknologisk.dk  
www.teknologisk.dk

## Test Report

Material: Model: 40/4 Bar

Type:	Chair			Lab.no.:	341545 A
Length:	530 mm	Width:	472 mm	Height:	1069 mm
Weight:	9,2 kg				
Materials:	Seat and back made of form pressed veneer 12 mm Frame Ø 14 mm				

Sampling: The test material was sampled by the client and received at the Danish Technological Institute 03-12-2009.

Method: EN 15373:2007 Furniture - Strength, durability and safety - Requirements for non-domestic seating. Loading according to Test severity 3. General use. Clauses 5.1, 5.2.3, 5.3.3, 6.1.1, 6.1.2, 6.1.4, 6.1.5, 6.1.10, 6.1.12, 6.1.16, 6.1.17, 6.1.19, 6.1.20, 6.2.

Period: The testing was carried out from 03-12-2009 to 22-12-2009.

Result: Model 40/4 Bar fulfils the requirements in EN 15373:2007 Furniture - Strength, durability and safety - Requirements for non-domestic seating. Loading according to Test severity 3. Individual results appear from Appendix 1.

Storage: The test material will be destroyed after 1 month, unless otherwise agreed.

Terms: The test has been performed according to the attached 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.

Software: This report was generated by software version 2.02 of 2009-10-08.

---

22-12-2009, Danish Technological Institute, Wood and Textile, Taastrup  
Revised 2010.01.04. This report replaces all previous for this sample.

Test responsible

Co-reader

Report no. 341545A  
Appendix 1  
Page 1 of 1  
Initials laha/pfy/hbs

**Test of model: 40/4 Bar  
Lab. no.: 341545 A**

**Loading according to Test severity 3.**

Test	Test Method	Cycles	Load	Result
5.1 General	EN 15373, 5.1			Passed
5.2.2 Shear and squeeze points under influence of powered mechanisms	EN 15373, 5.2.2			N/A
5.2.3 Shear and squeeze points during use	EN 15373, 5.2.3			Passed
5.3.2 Swivelling chairs	EN 15373, 5.3.2			N/A
5.3.3 Non swivelling chairs	EN 15373, 5.3.3			Passed
5.4 Rolling resistance of the unloaded chair	EN 15373, 5.4			N/A
6.1.1 Static Load - Seat and Back	EN 1728, 6.2.1	10 10	Seat: 1600 N Back: 560 N	Passed
6.1.2 Static Load of Seat Front Edge	EN 1728, 6.2.2	10	Seat: 1600 N	Passed
6.1.3 Additional Static Load Test for Tilting Chairs and Intermediate Reclining Chairs	EN 1728, 6.3.1			N/A
6.1.3 Additional Static Load Test for Fully Reclining Chairs	EN 1728, 6.3.2			N/A
6.1.4 Vertical Static Load on Back	EN 15373, A.2	10	Back: 600 N Seat: 1300 N	Passed
6.1.5 Static Load Test of Foot Rail/Foot Rest and Leg Rest	EN 1728, 6.4	10	1300 N	Passed
6.1.6 Sideways Static Load of Arms	EN 1728, 6.5			N/A
6.1.7 Sideways Static Load of Wings	EN 1728, 6.5			N/A
6.1.8 Downwards Static Load of Arms	EN 1728, 6.6			N/A
6.1.9 Vertical Upwards Static Load on Arm Rests	EN 15373, A.1			N/A
6.1.10 Combined Seat and Back Fatigue Test	EN 1728, 6.7	100000 100000	Seat: 1000 N Back: 300 N	Passed
6.1.11 Seat and Back Fatigue Test for Tilting Chairs and Intermediate Reclining Chairs	EN 1728, 6.9.1			N/A
6.1.11 Seat and Back Fatigue Test for Fully Reclining Chairs and Loungers	EN 1728, 6.9.2			N/A
6.1.12 Seat Front Edge Fatigue Test	EN 1728, 6.8	50000	1000 N	Passed
6.1.13 Arm Fatigue Test	EN 1728, 6.10			N/A
6.1.14 Leg Rest Fatigue Test	EN 1728, 6.11			N/A
6.1.15 Foot Rail Fatigue Test	EN 15373, A.5			N/A
6.1.16 Leg Forward Static Load Test	EN 1728, 6.12	10	Edge: 500 N) (Seat: 1300 N)	Passed

Report no. 341545A  
Appendix 1  
Page 2 of 1  
Initials laha/pfy/hbs

**Test of model: 40/4 Bar  
Lab. no.: 341545 A**

Test	Test Method	Cycles	Load	Result
6.1.17 Legs Sideways Static Load Test	EN 1728, 6.13	10	Edge: 490 N) (Seat: 1300 N)	Passed
Tilts at 300 N				
6.1.18 Diagonal Static Base Load Test	EN 1728, 6.14			N/A
6.1.19 Seat Impact Test	EN 1728, 6.15	10	240 mm	Passed
6.1.20 Back Impact Test	EN 1728, 6.16	10	330 mm / 48°	Passed
6.1.21 Arm Impact Test	EN 1728, 6.17			N/A
6.1.22 Drop Test (multiple seating)	EN 1728, 6.18			N/A
6.1.23 Auxiliary writing surface static load test	EN 15373, A.3			N/A
6.1.24 Auxiliary writing surface fatigue test	EN 15373, A.4			N/A
6.2 Strength and durability requirements	EN 15373, 6.2			Passed
7 Information for use	EN 15373, 7			N/A

Report no. 341545A  
Appendix 2  
Page 1 of 1  
Initials laha/pfy/hbs

**Test of model: 40/4 Bar**  
**Lab. no.: 341545 A**

**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.