

Test Report

Report Number:
903157-8



**DANISH
TECHNOLOGICAL
INSTITUTE**

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Init.: JJU/JHA
Order no.: 903157
Encl.: 2

Assignor: Gubi A/S, Klubiensvej 7 Frihavnen - Pakhus 53, DK-2150 Nordhavn

Item : Beetle Chair with Plastic Legs

Sampling: The assignor confirms having selected the product. The product was forwarded by the assignor and received at Danish Technological Institute on 4 June 2020.

Period: The test took place from 8 June 2020 to 3 July 2020.

Method: EN 16139:2013, Furniture - Strength, durability and safety - Requirements for non domestic seating
EN 16139 Test severity L2: Extreme use: E.g. in night-clubs, police stations, transport terminals, sport changing rooms, prisons, barracks (non-controlled areas).
Additional information is given in enclosure B.

Test results: **Passed.**
The results are shown in enclosure A.

Terms: This test was conducted accredited in accordance with international requirements (ISO/IEC 17025:2005) and in accordance with the General Terms and Conditions of Danish Technological Institute. The test results solely apply to the tested item. This test report may be quoted in extract only if Danish Technological Institute has granted its written consent.

Place: Danish Technological Institute, Taastrup, Building and Construction

Signature: This document is only valid with a digital signature from Danish Technological Institute.
Date of issue 6 July 2020.
Jesper Junge Pedersen
Consultant



DIGITALLY SIGNED DOCUMENT

6 July 2020

DANISH TECHNOLOGICAL INSTITUTE



DANAK

TEST Reg.no. 2



Test of Model: Beetle Chair with Plastic Legs

Loading according to test severity L2.

| Test no. | Test | Test Method | Cycles | Load | Result |
|----------|----------------------------------------------------------------|-----------------|------------------|-------------------------------|--------|
| 4.1 | General | EN 16139, 4.1 | | | Passed |
| 4.2.2 | Shear and squeeze points under influence of powered mechanisms | EN 16139, 4.2.2 | | | N/A |
| 4.2.3 | Shear and squeeze points during use | EN 16139, 4.2.3 | | | Passed |
| 4.3.2 | Swivelling chairs | EN 1335 | | | N/A |
| 4.3.3 | Non swivelling chairs | EN 1022 | | | Passed |
| 4.4 | Rolling resistance of the unloaded chair | EN 16139, 4.4 | | | N/A |
| 5 | Strength and durability requirements | EN 16139, 5 | | | Passed |
| 6.1.1 | Seat static load and back static load test | EN 1728, 6.4 | 10 10 | Seat: 2000 N Back: 700 N | Passed |
| 6.1.2 | Seat front edge static load | EN 1728, 6.5 | 10 | Seat: 1600 N | Passed |
| 6.1.3 | Vertical load on back rests | EN 1728, 6.6 | 10 | Seat: 1800 N Back: 900 N | Passed |
| 6.1.4 | Foot rest static load test | EN 1728, 6.8 | 10 | | N/A |
| 6.1.4 | Leg rest static load test | EN 1728, 6.9 | 10 | | N/A |
| 6.1.5 | Arm rest sideways static load test | EN 1728, 6.10 | 10 | | N/A |
| 6.1.6 | Arm rest downwards static load test | EN 1728, 6.11 | 5 | | N/A |
| 6.1.7 | Vertical upwards static load on arm rests | EN 1728, 6.13 | 10 | | N/A |
| 6.1.8 | Combined seat and back durability test | EN 1728, 6.17 | 200000 200000 | Seat: 1000 N Back: 300 N | Passed |
| 6.1.9 | Seat front edge durability test | EN 1728, 6.18 | 100000 | 800 N | Passed |
| 6.1.10 | Arm rest durability test | EN 1728, 6.20 | 60000 | | N/A |
| 6.1.11 | Foot rest durability test | EN 1728, 6.21 | 100000 | | N/A |
| 6.1.12 | Leg forward static load test | EN 1728, 6.15 | 10 | Edge: 560 N (Seat: 1800 N) | Passed |
| 6.1.13 | Legs sideways static load test | EN 1728, 6.16 | 10 | Edge: 560 N (Seat: 1800 N) | Passed |
| 6.1.14 | Seat impact test | EN 1728, 6.24 | 10 | 300 mm | Passed |
| 6.1.15 | Back impact test | EN 1728, 6.25 | 10 | 330 mm / 48 ° | Passed |
| 6.1.16 | Arm Impact Test | EN 1728, 6.26 | 10 | | N/A |
| 6.1.17 | Drop test (multiple seating) | EN 1728, 6.27.1 | 2 x 5 | | N/A |
| 6.1.18 | Auxiliary writing surface static load test | EN 1728, 6.14 | | | N/A |
| 6.1.19 | Auxiliary writing surface durability test | EN 1728, 6.22 | 20000 | | N/A |
| 7 | Information for use | EN 16139, 7 | | | N/A |



Information required by EN 16139:2013

European Standards used:

EN 16139:2013 - Furniture - Strength, durability and safety - Requirements for non-domestic seating

EN 1728/AC:2012 - Domestic furniture - Seating - Test methods - Determination of strength and durability

EN 1022:2005 - Domestic furniture - Seating - Determination of stability

EN 1335:2009 - Office furniture - Office work chair - Part 3: Test methods

Details of tested seating:

| | | | | | | | |
|-------------------|--------------------------------|---------------|--------|----------------|--------|----------------|---------|
| Model: | Beetle Chair with Plastic Legs | | | Type: | Chair | | |
| Length: | 485 mm | Depth: | 565 mm | Height: | 870 mm | Weight: | 6.08 kg |
| Materials: | Plastic | | | | | | |

Details of defects observed before testing:

None.

Details of any deviations from this standard:

None.

Any variation from the specified temperature range:

None.

Test result:

See appendix A.

Name and address of the test facility:

Danish Technological Institute, Gregersensvej, Taastrup 2630, Denmark

Date of test:

2020-06-08 to 2020-07-03

Photo of the received sample:

