

REPORT CARD FROM TEST NO. 01a/02/2024/S

Jankowo 2024-02-23

Determination of - strength - durability - stability	Seating furniture
The name of the object provided by Customer	Akunok 2 seater
Number given to the object in LBM	06/2024/01
Customer's name Address	Abstracta AB Box 75 SE-363 03 Lammhult
Order number	Nr 06/2024
Date of order's submission	02.02.2024
Date of the subject's delivery	02.02.2024
Producer's name Address	Abstracta AB Box 75 SE-363 03 Lammhult
Test methods used	PN-EN 1728:2012, PN-EN 1728:2012/AC:2013-09, PN-EN 1022:2019-03, 1012 MÖBELFAKTA'S Ver. 2024-01-01 (16)
The list of standards according to which tests were conducted	PN-EN 1022:2019-03, PN-EN 16139:2013-07, PN-EN16139:2013-07/AC:2013-09, 1012 MÖBELFAKTA'S Ver. 2024-01-01 (16)
Place of performing the tests	Seat of LBM Laboratory Karol Łabęda
Start date of tests	05.02.2024
End date of tests	23.02.2024

The research results presented in the report refer only to the studied objects.
The research report cannot be reproduced in parts only.

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Test methods used

PN-EN 1728:2012 Furniture. Seating furniture. Test methods for strength and durability.

PN-EN 1728:2012

/AC:2013-09

PN-EN 1022:2019-03 Furniture. Seating furniture. Determination of stability.

1012 MÖBELFAKTA'S Requirements specification.

Ver. 2024-01-01 (16)

The list of standards according to which tests were conducted

PN-EN 1022:2019-03 Furniture. Seating furniture. Determination of stability.

PN-EN16139:2013-07 Furniture. Strength, durability and safety.

PN-EN16139:2013-07 Requirements for seating used outside the dwelling.

/AC:2013-09

1012 MÖBELFAKTA'S Requirements specification.

Ver. 2024-01-01 (16)

The tests were performed in accordance with the requirements of the standard: PN-EN 1728:2012

- The static forces were maintained in time (10 ± 2) s
- The forces applied during the durability test were maintained by (2 ± 1) s
- The forces may be replaced by masses. The relationship $10 \text{ N} = 1 \text{ kg}$ shall be used .

The tests were performed in accordance with the requirements of the standard: PN-EN 1728:2012

- Forces: $\pm 5\%$ of the nominal force
- Masses: $\pm 1\%$ of the nominal mass
- Dimensions: $\pm 1 \text{ mm}$ of the nominal dimension
- Angles $\pm 2^\circ$ of the nominal angle
- The accuracy for the positioning of loading pads and impact plates shall be 5 mm.

The test object (s) were delivered to the laboratory by the customer, assembled and prepared for testing by the laboratory personnel.

The object (s) subjected to the strength, durability and stability tests did not have any structural damage that could affect the test results and safety of use.

The object (s) were generally checked prior to testing. All detachable connections were tightened with a torque screwdriver with a torque of 2 Nm.

Distribute

- 1 copy - in electronic copy – Customer - **Abstracta AB**
- 1 copy - Furniture Testing Laboratory "LBM Karol Łabęda"

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REPORT CARD FROM TEST No. 01a/02/2024/S
Tests results – properties (strength , durability)

SEATING FURNITURE

The name of the object provided by Customer: Akunok 2 seater
Number given to the object in LBM: 06/2024/01
Furniture dimensions in [mm]: height: 1300 width: 2000 depth: 1000

Methodology: PN-EN 1728:2012, PN-EN 1728:2012/AC:2013-09
Requirements: PN-EN 16139:2013-07, PN-EN 16139:2013-07/AC:2013-09 level 2

The standard PN-EN 1728:2012 PN-EN 1728:2012 /AC:2013-09 point	Test according to PN-EN 1728:2012 PN-EN 1728:2012/AC:2013-09	Tests parameters according to PN-EN 1728:2012 PN-EN 1728:2012/AC:2013-09 and the requirements of the standard PN-EN 16139:2013-07 PN-EN 16139:2013-07/AC:2013-09 level 2		Test results *
		Name of the parameter	The value of the parameter	
4.1	Preliminary preparation	According to the standard		Possitive
4.2	Application of forces	According to the standard		Possitive
4.3	Tolerances	According to the standard		Possitive
5	Checking equipment and apparatus	Current inspection		Possitive
6.2.1	Determining the points of application of forces to the seat and backrest.	According to the template WP-PR-03		Possitive
6.2.2	Determining the points of application of forces to the seat and backrest. Seats with backrest	According to the standard		Possitive
6.3	Determining the angle of the backrest	According to the template WP-PR-03		Possitive
6.4	Seat static load test	Force [N] Number of cycles	2000 10	Possitive
6.4	Back static load test	Force [N] Number of cycles	700 10	Possitive
6.5	Seat front edge static load test	Force [N] Number of cycles	1600 10	Possitive
6.6	Test of loading of the backrest by a vertical force directed downwards	Force [N] Number of cycles	900 10	Possitive
6.15	Leg forward static load test	Vertical force [N] Horizontal force [N] Number of cycles	1800 620 10	Possitiv
6.16	Leg sideways static load test	Vertical force [N] Horizontal force [N] Number of cycles	1800 760 10	Possitive
6.17	Seat durability test	Force [N] Number of cycles	1000 200 000	Possitive
6.17	Back durability test	Force [N] Number of cycles	300 200 000	Possitive
6.18	Seat front edge durability test	Force[N] Number of cycles	1000 100 000	Possitive
6.24	Seat impact test	Drop height [mm] Number of cycles	300 10	Possitive
6.25	Back impact test	Drop height [mm] Number of cycles	330 10	Possitive
6.27.1	Free fall test for furniture multi-seaters	Drop height [mm] Number of cycles	450 2x5	Possitive

* - in the column the test result is entered (positive or negative or not tested or not applicable)

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REPORT CARD FROM TEST No. 01a/02/2024/S
Tests results – properties (stability)

SEATING FURNITURE

The name of the object provided by Customer: Akunok 2 seater
 Number given to the object in LBM: 06/2024/01
 Seat height in [mm]: height: 440

Methodology: PN-EN 1022:2019-03
 Requirements: PN-EN 1022:2019-03

The standard PN-EN 1022:2019-03 point	Test according to PN-EN 1022:2019-03	Tests parameters according to PN-EN 1022:2019-03 and the requirements of the standard PN-EN 1022:2019-03		Test results *
		Name of the parameter	The value of the parameter	
7.3.1	Loss of balance forward, all the seating furniture	Vertical force [N] Horizontal force [N] Time[S]	600 20 5	Positive
7.3.2	Loss of balance forward, all seating furniture with footrest	Vertical force [N] Horizontal force [N] Time[S]	1100 20 5	Not applicable
7.3.3	Corner losing balance	Vertical force [N] Time[S]	300 5	Not applicable
7.3.4	Loss of balance aside, all seating furniture without armrests	Vertical force [N] Horizontal force [N] Time[S]	600 20 5	Not applicable
7.3.5.2	Losing balance aside, all seating furniture with armrests	Vertical force [N] Horizontal force [N] Time[S]	250+350 20 5	Not applicable
7.3.5.3	Losing balance aside, all seating furniture with high side edges	Vertical force [N] Horizontal force [N] Time[S]	250+350 20 5	Positive
7.3.6**	Loss of balance backwards, all seating furniture with backs	Vertical force [N] Horizontal force [N] Time[S]	600 150 5	Positive
7.4.2	Loss of balance backwards, all seating furniture with reclining backs	Vertical force [N] Time[S]	13x100 5	Not applicable

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** (7.3.6 Horizontal force: $P = (1000 - h_s) * 0,2857$ [N] (rounded up to 10 N)

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Tests results – properties (strength , durability)

SEATING FURNITURE

The name of the object provided by Customer: Akunok 2 seater
 Number given to the object in LBM: 06/2024/01
 Furniture dimensions in [mm]: height: 1300 width: 2000 depth: 1000

Requirements: 1012 MÖBELFAKTA'S Ver. 2024-01-01 (16), PN-EN 16139:2013-07,
 PN-EN 16139:2013-07/AC:2013-09 level 2

Requirements 1012 MÖBELFAKTA'S Ver. 2024-01-01 (16)	Test according to PN-EN 16139:2013-07, PN-EN 16139:2013-07/AC:2013-09	Test parameters and requirements in accordance with the standard and with the specification PN-EN 16139:2013-07 PN-EN 16139:2013-07/AC:2013-09 level 2 1012 MÖBELFAKTA'S Ver. 2024-01-01 (16)		Test results *
		Name of the parameter	The value of the parameter	
Point 1.1.1.3	Seating furniture In accordance with PN-EN 16139:2013-07, PN-EN 16139:2013-07/AC:2013-09	Described in the table above		Possitive

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