

„MEŽA UN KOKSNES PRODUKTU PĒTNIECĪBAS UN ATTĪSTĪBAS INSTITŪTS” SIA
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Test Report No. 990-1/2025

Forest and Wood Products Research and Development Institute Testing Laboratory

Customer: LLP “TROYA Company”
Registration number: 16891-1945-TOO
Customer address: Pavlodar City, Lomova Street, 17612, The Republic of Kazakhstan

Manufacturer: LLP “TROYA Company”
Registration number: 16891-1945-TOO
Manufacturer address: Pavlodar City, Lomova Street, 17612, The Republic of Kazakhstan

Owner of the Test Report: LLP “TROYA Company”
Registration number: 16891-1945-TOO
Owner address: Pavlodar City, Lomova Street, 17612, The Republic of Kazakhstan

Date of the order: 18.08.2025.

Testing was done in conformity with contract No.:134-09/25 MV

Test performed at: SIA “Meža un koksnes produktu pētniecības un attīstības institūts”, Krišjāņa Barona street 40A, LV-3001, Jelgava, Latvia.

1 Order content:

Testing in accordance with Standard:

- EN 1728:2012 “Furniture - Seating - Test methods for the determination of strength and durability”;
- EN 1022:2023 “Furniture – Seatings – Determination of stability”.

Following the requirements of Standards:

- EN 1729-1:2016 „Furniture - Chairs and tables for educational institutions - Part 1: Functional dimensions”;
- EN 1729-2:2023 “Furniture - Chairs and tables for educational institutions - Part 2: Safety requirements and test methods”.

2 Information provided by customer about delivered test specimen:

- Test sample: Student Chair.
- Name of the sample: AURA Student Chair.
- Type of the material: Plastic, Metal.
- Sample dimensions: 800x510x590mm, ≥4.9kg.
- Sample production date: 16.09.2025.
- Sample production place: 140013, Republic of Kazakhstan, Pavlodar, 98 Tsiolkovskogo st.
- Sample manufacturer: TROYA Company LLP.
- Date of sampling: 16.09.2025.
- Sampling place: 140013, Republic of Kazakhstan, Pavlodar, 98 Tsiolkovskogo st.
- Sampling done by: TROYA Company LLP.
- Procedure of sampling: Specially made for testing.
- Other information: -.

3 Laboratory description of the specimen and test method:

- Test sample: Chair.
- Laboratory number for sample: 990-1.
- Test standard: EN 1728:2012 /AC:2013 and EN 1022:2023.

- Test sample delivered: 28.10.2025.
- Test sample delivered by: Courier.
- Test sample test date: 29.10.2025. – 11.11.2025.



Figure 1: Student Chair “AURA Student Chair”.



Figure 2: Front view.

4 Description of the delivery condition of the unit:

- Test specimen delivered assembled. Good condition, no defects.
- The test specimen has been stored in indoor ambient conditions for at least 24 h immediately prior to testing.
- The tests are carried out in indoor ambient conditions at a temperature between 15 °C and 25 °C.

5 Test results:

Table 1

Requirements of EN 1729-2:2023, EN 1729-1:2016	Test parameters according to EN 1022:2023, EN 1730:2012 and EN 1728:2012 /AC:2013	Requirement fulfilled (+) Requirement not fulfilled (-)
1	2	3
5 Safety requirements, EN 1729-2:2023		
EN 1729-2:2023, (5.1) General safety requirements - Where a requirement in 5.1 might conflict with 5.2 and/or 5.3, the relevant requirement of 5.2 and/or 5.3 has predominance over 5.1. In order to minimize the risk of personal injury or damage to clothing, the following requirements apply: a) edges which are directly in contact with the user are rounded or chamfered; b) all other edges and corners accessible during intended use are free from burrs and/or sharp edges; there shall be no areas where the distance between two accessible parts moving relative to each other can be less than 25 mm, and more than 8 mm in any position during movement that could present a risk of injury to the user, created by parts of the furniture operated by powered mechanisms, e.g. mechanical springs and gas lifts. c) This requirement is fulfilled if there is no hazard present when tested in accordance with CEN/TR 17202:2018, 8.3 and 8.4. d) adjustment controls shall not operate inadvertently or accidentally; e) when accessible to the user under normal use, open ends, and feet of tubular components shall be capped or otherwise closed; f) There shall be no holes in the ends of tubular components or holes in rigid components in accessible parts between 8 mm and 18 mm, unless the depth of penetration is less than 10 mm or capped. This requirement is fulfilled if there is no hazard present when tested in accordance with CEN/TR 17202:2018, 7.3 and 7.4; g) parts shall not be detachable without the use of an appropriate tool; h) chairs shall not overturn when tested as specified in 6.2; i) chairs shall show no structural failure which can affect safety when tested for strength and durability as specified in 6.3 and they shall still fulfil their function. For overload tests there shall be no visible fracture or breakage; j) tables shall not overturn when tested as specified in 7.1 of this document; k) tables shall show no structural failure which can affect safety when tested for strength and durability as specified in 7.2 and they shall still fulfil its function.visible fracture or breakage;		a) +
		b) +
		c) Not applicable
		d) +
		e) +
		f) +
		g) +
		h) +
		i) +
		j) Not applicable
		k) Not applicable
4 Functional dimensions for chairs and tables, EN 1729-1:2015		

Requirements of EN 1729-2:2023, EN 1729-1:2016	Test parameters according to EN 1022:2023, EN 1730:2012 and EN 1728:2012 /AC:2013	Requirement fulfilled (+) Requirement not fulfilled (-)
1	2	3
EN 1729-1:2015, (4) Functional dimensions for chairs and tables - The functional dimensions and corresponding size marks and colour codes for chairs with slopes between -5° and +7° and associated tables shall be as specified in the normative Annex A.		+ (See Table A.1)
6 Testing of chairs, EN 1729-2:2023		
6.2 Stability, EN 1729-2:2023		
EN 1729-2:2023, (6.2.2) Forward stability - the seating shall not overturn.	EN 1022:2023, (7.3.1) Forwards overturning: - seat load 600 N; - horizontal force 20 N.	+
EN 1729-2:2023, (6.2.3.1) Sideways stability of chairs without armrests - the seating shall not overturn.	EN 1022:2023, (7.3.4) Sideways overturning, all seating without arm rests: - seat load 600 N; - horizontal force 20 N.	+
EN 1729-2:2023, (6.2.3.2) Sideways stability of chairs with armrests - the seating shall not overturn.	EN 1022:2023, (7.3.5) Sideways overturning, all other seating: - seat load 250 N; - armrest load 350 N; - horizontal force 20 N; - position of seat load 95 mm.	Not applicable
EN 1729-2:2023, (6.2.4) Rearwards stability - the seating shall not overturn.	EN 1022:2023, (7.3.6) Rearwards stability: - seat load 600 N; - horizontal force 140 N.	+
EN 1729-2:2023, (6.2.5) Chairs with backrest inclination - the seating shall not overturn.	EN 1022:2023, (7.4) Additional test procedures for seating with reclining back rests: - number of loading discs 13.	Not applicable
EN 1729-2:2023, (6.2.6) Corner stability - the seating shall not overturn.	EN 1022:2023, (7.3.3) Corner stability test: - vertical force 250 N.	+
6.3 Strength and durability, EN 1729-2:2023		
EN 1729-2:2023, (6.3.1) General - The strength and durability of the chairs shall be tested in accordance with EN 1728 using the loads and cycles specified below.		
EN 1729-2:2023, (6.3.2) Seat and back static load - the seating shall not overturn.	EN 1728:2012, (6.4) Seat and back static load: - seat load 2000 N; - max back load 700 N - 10 cycles.	+
EN 1729-2:2023, (6.3.3) Seat and back durability - the seating shall not overturn.	EN 1728:2012, (6.17) Seat and back durability: - seat load 1250 N; - back load 300 N; - cycles 100 000.	+
EN 1729-2:2023, (6.3.4) Seat front edge durability - the seating shall not overturn.	EN 1728:2012, (6.18) Seat front edge durability: - load 800 N; - cycles 50 000.	+
EN 1729-2:2023, (6.3.5) Sideways static load - the seating shall not overturn.	EN 1728:2012, (6.16) Leg sideways static load: - vertical load 1600 N; - max horizontal load 600 N; - cycles 10.	+
EN 1729-2:2023, (6.3.6) Forward static load - the seating shall not overturn.	EN 1728:2012, (6.15) Leg forward static load: - vertical load 1600 N;	+

Requirements of EN 1729-2:2023, EN 1729-1:2016	Test parameters according to EN 1022:2023, EN 1730:2012 and EN 1728:2012 /AC:2013	Requirement fulfilled (+) Requirement not fulfilled (-)
1	2	3
	- max horizontal load 600 N; - cycles 10.	
EN 1729-2:2023, (6.3.7) Seat impact - the seating shall not overturn.	EN 1728:2012, (6.24) Seat impact: - 10 cycles; - drop height 300 mm; - seat impactor mass 25 kg.	+
EN 1729-2:2023, (6.3.8) Back impact - the seating shall not overturn.	EN 1728:2012, (6.25) Back impact: - 10 cycles; - angle of hammer 68°; - mass of impact hammer 6.5 kg.	+
EN 1729-2:2023, (6.3.9) Static load of foot rail - the seating shall not overturn.	EN 1728:2012, (6.8) Static load of foot rail: - 10 cycles; - seat load 1300 N.	Not applicable
EN 1729-2:2023, (6.3.10) Drop test - the seating shall not overturn.	EN 1728:2012, (6.27.3) Drop test: - 5 cycles; - drop height 600 mm.	+
EN 1729-2:2023, (6.3.11) Foot rest durability - the seating shall not overturn.	EN 1728:2012, (6.21) Foot rest durability: - 50 000 cycles; - load 1000 N.	Not applicable
EN 1729-2:2023, (6.3.12) Armrest durability load test - the seating shall not overturn.	EN 1728:2012, (6.20) Armrest durability load: - cycles 60 000; - force 400 N.	Not applicable
EN 1729-2:2023, (6.3.13) Armrest static load - the seating shall not overturn.	EN 1728:2012, (6.11) Arm rest downwards static load test: - armrest downward static load 600 N; - overload 900 N; - cycles 5.	Not applicable
EN 1729-2:2023, (6.3.14) Side to side durability test - the seating shall not overturn.	EN 1728:2012, (7.2.5, 7.2.8) Side to side durability test: - seat load 1100 N; - cycles 50 000.	Not applicable
EN 1729-2:2023, (6.3.15) Vertical static load on auxiliary surfaces - the seating shall not overturn.	EN 1728:2012, (6.14) Vertical static load on auxiliary surfaces: - force 300 N; - cycles 10.	Not applicable
EN 1729-2:2023, (6.3.16) Auxiliary writing surface durability test - the seating shall not overturn.	EN 1728:2012, (6.22) Auxiliary writing surfaces durability test: - force 150 N; - cycles 20 000.	Not applicable
5 Marking, EN 1729-1:2015		
EN 1729-1:2015, (5) Marking - Chairs and tables in Annex A shall be marked as 0 to 7. Chairs and tables in Annex B shall be marked as B0 to B7. Standing-height tables in Annex C shall be marked as C0 to C7. Tall chairs in Annex D shall be marked as D0 to D7. Stools in Annex E shall be marked as E0 to E7. The marking of fixed and adjustable chairs and tables shall be legible and indelible and shall include at least the following information: a) Size mark our colour code or both, as specified in Annex A, Annex B, Annex C, Annex D or Annex E; b) Marking on adjustable furniture of the size marks covered; c) Name and/or trade name and/or mark and address of the manufacturer or his or her authorized representative in full or in abbreviated form, provided the abbreviation enables the manufacturer and/or his or her authorized representative to be identified; d) Date of production by stating at least the year and month of production. Tall chairs shall also be marked with a reference where to find information on the table height they are intended to be used with. This information shall be provided on a label directly or via a web address, QR-code or other suitable application. Tables that are intended for use with tall chairs shall be marked with their height (distance from the floor to the top of		a) +
		b) +
		c) +
		d) +

Requirements of EN 1729-2:2023, EN 1729-1:2016	Test parameters according to EN 1022:2023, EN 1730:2012 and EN 1728:2012 /AC:2013	Requirement fulfilled (+) Requirement not fulfilled (-)
1	2	3
the table). This information shall be provided on a label directly or via a web address, QR-code or other suitable application.		
6 Instructions, EN 1729-1:2015		
EN 1729-1:2015, (6) Instructions - The instructions shall be submitted with the furniture in the official languages(s) of the country where the furniture is sold. They can be given affixed to the furniture, on a label, in a leaflet or in the instructions for use. They shall include at least the following: a) Size mark reference: size mark identification shall be referenced to this European Standard; b) Maintenance instructions: including information on maintenance and cleaning; c) Installation instructions for multi-size furniture: instructions on how to adjust the furniture to fit a specific group of pupils; d) Adjustability information: instructions for the users (pupils) of adjustable furniture shall include information on how to operate the adjustments and information on how to recognize correct settings and therefore a good posture; e) Warning concerning the hazard when working with gas lifts: "Attention: Any repair or service work with gas cylinders shall be carried out by trained persons only."		a) +
		b) +
		c) Not applicable
		d) Not applicable
		e) Not applicable
7 Approval of range, EN 1729-1:2015		
EN 1729-1:2015, (7) Approval of range - In order to approve a range of chairs, stools or tables, each size mark within the range shall be measured separately. When assessing table top dimensions for a range of tables, if there are six or fewer different table top shapes or sizes in the range, all table tops shall be measured. If there are more than six different table top shapes or sizes, six shall be measured and the additional table top shapes or sizes shall be assessed from the manufacturer's drawings of them. The drawings shall show full details (dimensions) of each table top and its under frame structure. The information provided shall be used to assess whether the size of table top and legroom clearance fulfil the requirements of the standard. The test report shall state which table tops have been measured and which have been assessed from drawings. These drawings shall be attached to the report.		Not applicable
		
Figure 3: Rearwards stability: - seat load 600 N; - horizontal force 140 N.	Figure 4: Seat and back durability: - seat load 1250 N; - back load 300 N; - cycles 100 000.	Figure 5: Leg sideways static load: - vertical load 1600 N; - max horizontal load 600 N; - cycles 10.

EN 1729-1:2015 Table A.1 – Dimensions and size marks for chairs with single-sloped seats

All dimensions in millimetres unless otherwise stated

Size code	0	1	2	3	4	5	6	7
Color code	White	Orange	Violet	Yellow	Red	Green	Blue	Brown
Popliteal range (with shoes)	200-250	250-280	280-315	315-355	355-405	405-435	435-485	485 +
Stature range (without shoes)	800-950	930-1160	1080-1210	1190-1420	1330-1590	1460-1765	1590-1880	1740-2070
h ₈ Height of top ± 10 mm	210	260	310	350	380	430	460	510
Measured	-	-	-	-	-	-	453	-

Size code	0	1	2	3	4	5	6	7
Color code	White	Orange	Violet	Yellow	Red	Green	Blue	Brown
t ₄ Effective depth of seat ± 15 (0-2), ± 25 (3-7)	n/a	n/a	n/a	300	340	380	420	460
Measured	-	-	-	-	-	-	444	-
b ₃ Seat width (min)	210	240	280	320	340	360	380	400
Measured	-	-	-	-	-	-	420	-
x Distance between Point S and back of seat pad (max)	n/a	n/a	n/a	30	30	50	50	50
Measured	-	-	-	-	-	-	0	-
h ₇ Backrest height (min)	100	100	100	100	100	100	100	100
Measured	-	-	-	-	-	-	>100	-
b ₄ Width of backrest (min)	n/a	n/a	n/a	260	270	300	330	360
Measured	-	-	-	-	-	-	420	-
r ₂ Horizontal radius of backrest (min)	n/a	n/a	n/a	300	300	300	300	300
Measured	-	-	-	-	-	-	>300	-
α Inclination of seat	n/a	n/a	n/a	-5° to +7°	-5° to +7°	-5° to +7°	-5° to +7°	-5° to +7°
Measured	-	-	-	-	-	-	+1,75°	-
γ Angle between seat and backrest	n/a	n/a	n/a	95° to +110°	95° to +110°	95° to +110°	95° to +110°	95° to +110°
Measured	-	-	-	-	-	-	+104,25°	-
p Height of armrest above seat -20 to +10	n/a	n/a	n/a	170	190	210	230	250
Measured	-	-	-	-	-	-	Not applicable	-
r Width between arms	n/a	n/a	n/a	360-410	390-440	420-470	460-510	510-570
Measured	-	-	-	-	-	-	Not applicable	-
q Distance from backrest to front edge of armrest (max)	n/a	n/a	n/a	n/a	225	250	275	300
Measured	-	-	-	-	-	-	Not applicable	-
o Width of armrest (min)	n/a	n/a	n/a	n/a	20	20	20	20
Measured	-	-	-	-	-	-	Not applicable	-
n Length of armrest (min)	n/a	n/a	n/a	n/a	80	80	80	80
Measured	-	-	-	-	-	-	Not applicable	-

6. Testing laboratory comments summary

Student Chair "AURA Student Chair" Seat size "6" fulfills functional dimensions and safety requirements according to EN 1729-1:2016 „Furniture - Chairs and tables for educational institutions - Part 1: Functional dimensions” and fulfills safety, stability, strength and durability requirements according to EN 1729-2+A1:2016 “Furniture - Chairs and tables for educational institutions - Part 2: Safety requirements and test methods”. Detailed test results are reflected in Table 1.

Date of issue: 24.11.2025.

Prepared by
V.Pamovskis

Reviewed by


(signature and name)

K.Būmanis

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