



ZENIČKA RAZVOJNA AGENCIJA
ZENICA DEVELOPMENT AGENCY



LIND Laboratorija za ispitivanje sigurnosti proizvoda
LIND Laboratory for product safety testing

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TEST REPORT

PI / 45 / 17

(LIND identification mark)

Customer and address: YIELD d.o.o. Hamdije Kreševljakovića 64 Sarajevo, BiH	Number from ZEDA Protocol book		LIND identification mark of test item PI / 45 / 17	
	Enter: 01-42-706/17	Exit: 01-42-706-4/17		
Test item:	<p>Furniture for seating - non-domestic seating with armrests - chair "AVA"</p> 			
Standards:	<p>According to the ZEDA offer No. 01-42-706-1/17 dated on 13.12.2017 and test order YIELD Ltd. No. 45/2017 dated on 10.11.2017, testing "AVA" chair is performed according to the requirements of standards:</p> <ul style="list-style-type: none"> - BAS EN 16139:2014 + BAS EN 16139/Cor1:2014 Furniture - Strength, durability and safety - Requirements for non-domestic seating 			
Test results:	<p>According to the test results we concluded that test item PI/45/17: <u>FULFILS</u> requirements of standards BAS EN 16139:2014 + BAS EN 16139/Cor1:2014.</p>			
Comment:	<p>Test results are given in the Annex A of Test report PI/45/17 (pages 1. - 2.)</p>			
Test report is made by: Manager of LIND  Amir Kubat	Date of issuing: 06.02.2018	 M.P. ZEDA 1 d.o.o.	Approved by: Director of ZEDA Agency  Senad Pašalić	Page 1 / 1

BAS EN ISO/IEC 17025



LI-74-01

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LIND - Accredited laboratory for performing mechanical testing of furniture and equipment for playground

OL5-10-02-4

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TEST RESULTS – PI/45/17

PRODUCT DATA	
Title of the product / test item: Furniture for seating - non-domestic seating with armrests – chair “AVA”	Dimensions: Chair height: 760 mm Seat height: 450 mm Seat width: 450 mm Seat depth: 445 mm Back width: 480 mm
Material of the product/ test item:	Construction – solid wood, oak Seat – upholstered with textile
Description of the product/ test item:	Furniture for seating - non-domestic seating with armrests
Date of the test item receipt:	29.12.2017.
Air-conditioned:	from 29.12.2017. to 03.01.2018.

Images of test item – chair “AVA”



TEST RESULTS – chair “AVA”							
Test according to the clause of standard:	Requirements of standard					Result	Requirements fulfilled YES/NO
	Number of cycles/time	Value and unit	Weight (kg)	Adjustability		
BAS EN 16139:2014 + BAS EN 16139/Cor1:2014 Furniture - Strength, durability and safety - Requirements for non-domestic seating							
4 Safety							
4.1 General	/	According to the standard from a to e				/	YES
4.2.1 Shear and squeeze points when setting up and folding	/	Without shear and squeeze				/	/
4.2.2 Shear and squeeze points when setting up and folding under influence of powered mechanism	/	Without shear and squeeze				/	/
4.2.3 Shear and squeeze points during use	/	Without shear and squeeze				/	YES
4.3 Stability - 4.3.1 General	Fulfilled requirements from a) to e)					/	YES
4.3.3 Non swivelling chairs	Fulfilled requirements of BAS EN 1022:2009					/	YES
5. Safety, strength and durability requirements	If the requirements of this clause of standard and the requirements of Table 1 are fulfilled					/	YES
BAS EN 1022:2009 Domestic furniture- Seating - Determination of stability							
6.2 Forwards overbalancing, all seating (BAS EN 1022)	5 sec.	600 N Horiz. force 20 N				Overb. force N 134 N	YES
6.5 Sideways overbalancing, all seating with arms (BAS EN 1022)	5 sec.	350 N 250 N Horiz. force 20 N				Overb. force N 74 N	YES
6.6. Rearwards overbalancing, all seating with backs (BAS EN 1022)	5 sec.	$F=0,2857 \times (1000-H) = 153,9 \text{ N}$				Overb. force N 174 N 160,5 N	YES

TEST RESULTS – continuation – chair “AVA”

Test according to the clause of standard:	Requirements of standard					Result	Requirements fulfilled YES/NO
	Number of cycles/time	Value and unit	Weight (kg)	Adjustability		
BAS EN 16139:2014 + BAS EN 16139/Cor1:2014 Furniture - Strength, durability and safety - Requirements for non-domestic seating							
4.5 Safety of the construction	If the requirements from clause 6 of this standard Table 1 are fulfilled		Connection with: BAS EN 1728:2014 + BAS EN 1728/Cor1:2014		/	YES	
6 Test methods							
- Test order according to the Table 1 of standard BAS EN 16139:2014 + BAS EN 16139/Cor1:2014 (BAS EN 1728:2014 + BAS EN 1728/Cor1:2014)							
Table 1- Safety, strength and durability tests							
Ord.No. from Table 1	Test	Number of cycles	Loading	Level		Result	Requirements fulfilled YES/NO
				L1	L2		
1.	6.4 Seat and back static load test	10	Seat: Back:	1600 N 560 N (min 410 N)	2000 N 700 N (min 410 N)	10x	YES
2.	6.5 Seat front edge static load test	10	Force:	1300 N	1600 N	10x	YES
3.	6.6 Vertical static load on back	10	Seat: Back:	1300 N 600 N	1800 N 900 N	10x	YES
5.	6.10 Arm sideways static load test	10	Force:	400 N	900 N	10x	YES
6.	6.11 Arm downwards static load test	5	Force:	750 N	900 N	5x	YES
7.	6.13 Vertical upwards static load on arm rests	10 times during $\geq 10s$	Seat load:	250 N or lift stack with max 8 chairs of max 25 kg	1200 N	10x	YES
8.	6.17 Seat and back durability test	100.000	Seat: 1.000 N Back: 300 N (min. force not defined)	Cycles: 100.000 x	200000 x	100.000x	YES
9.	6.18 Seat front edge durability test	50.000	Cycles: 800 N	50.000 x	100000 x	50.000x	YES
10.	6.20 Arm durability test	30.000	Cycles: 400 N	30.000 x	60.000 x	30.000x	YES
12.	6.15 Leg forward static load test	10	Force: Seat:	500 N 1000 N	620 N 1800 N	10x	YES
13.	6.16 Leg sideways static load test	10	Force: Seat:	400 N 1000 N	760 N 1800 N	10x	YES
14.	6.24 Seat impact test	10	Impact hammer with mass of 25 kg from the height:	240 mm	300 mm	10x	YES
15.	6.25 Back impact test	10	Impact hammer	210/38°	330/38	10x	YES
16.	6.26 Arm impact test	10	Height of fall, mm: Angle of fall, °:	210 mm 38°	330 mm 48°	10x	YES
Remark: L1 for general use; L2 for extreme use; For detail explanation see Annex B of standard BAS EN 16139:2014							
7 Information for use						/	YES
LEGEND: YES – requirement fulfilled; NO – requirement not fulfilled; / - not requested; X – a requirement of standard not tested s – seat; b – back; r – arm rest							

Ambient conditions during test:

- Temperature: from 17,8 to 19,7 °C - Requirement of standard fulfilled: YES / NO
- Relative humidity: from 48,1 to 50,2 % - Requirement of standard fulfilled: YES / NO

Comment:

Tests according to the clauses of standard that are not listed in the specified column with related ordinal numbers, are NOT standard provided and applicable for this test item.

OL5-04-01-2

Date of test start: 03.01.2018

Test performed and working order filled by:

Sanel Ibrić / Emir Čaplja

Sanel Ibrić / Emir Čaplja

Test performer

Test results PI/45/17



Date of test completion: 02.02.2018

Checked/Approved by:

Amir Kubat

Amir Kubat

Manager of LIND

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