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Certificate No. LA.01.060

TEST REPORT No. BBC 22-428

19 12 2022
Vilnius

Determination of safety, strength and durability for
ERGON RANKED SEATING SYSTEMS

Customer	DROMEAS SA
Address of customer	Industrial Area of Serres, 62121, Greece
Application for test	No. A 22-224-1, date 07 12 2022
Date of receive test object	07 12 2022
Manufacturer name	DROMEAS SA
Indication of normative document	EN 12727:2016, EN 1728:2012 including corrigendum EN 1728:2012/AC:2013, EN 1022:2018
Date of test	07 12 2022 (beginning) 19 12 2022 (end)

Conclusion

ERGON RANKED SEATING SYSTEMS **complies** with the standard EN 12727:2016 (Furniture – Ranked seating – Requirements for safety, strength and durability) **test severity 1** requirements.

Test object

ERGON RANKED SEATING SYSTEMS consists of three tipping seats and table top. Height of seats and table top can be adjusted during the assembling. Seats and backrests are made of 9 mm thickness plywood. Table top is made of 18 mm thickness finished particle board. Frame of ranked seating is made of metal tubes in rectangular shape, angles, U shape profiles and steel sheet. Legs are telescopic.
External dimensions of segment of ranking seating are: length 1650 mm. Length of table top is 1590 mm, width 350 mm. Width of seats is 460 mm, depth 450 mm.

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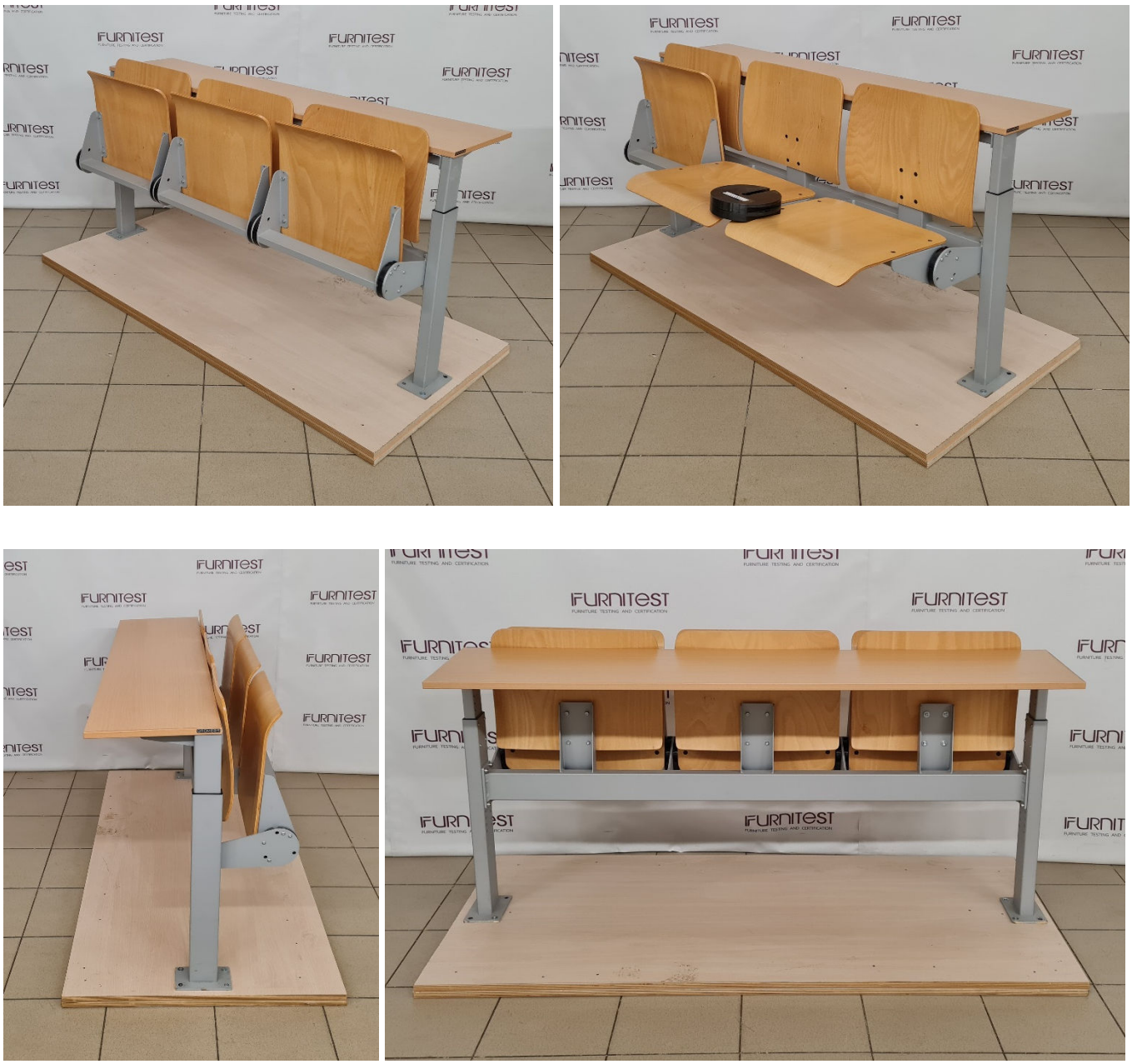

Figure 1. *ERGON RANKED SEATING SYSTEMS*

Normative documents and test methods

EN 12727:2016 Furniture – Ranked seating – Requirements for safety, strength and durability.
EN 1728:2012 including corrigendum EN 1728:2012/AC:2013 Domestic furniture. Seating. Test methods for the determination of strength, and durability.
EN 1022:2018 Furniture - Seating - Determination of stability

Unless otherwise stated, the following tolerances are applicable:

- forces ±5 % of the nominal force;
- velocities ±5 % of the nominal velocity;
- masses ±1 % of the nominal mass;
- dimensions ±1 mm of the nominal dimension;
- angles ±2º of the nominal angles.

The accuracy for the positioning of loading pads and impact plates shall be 5 mm.

The tests were carried out in normal indoor ambient conditions at the temperature of (20±5) °C.

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Test apparatuses

Apparatus 195 MP certificate No. 24, apparatus 194 MP certificate No. 27, apparatus 241 MP certificate No. 22, apparatus 645 MB certificate No. 1.

Table 1. *ERGON RANKED SEATING SYSTEMS* test results

Standard	Test and method, loads	Requirements	Test results	Pass/Fail or N/A*
5 Safety, strength and durability requirements, EN 12727:2016		**EN 12727:2016**		
5.1 General				
5.1	The seating shall be so designed as to minimize the risk to the user. All accessible parts shall be designed that physical injury and damage are avoided. This requirement is met when:	shall be designed to ensure that physical injury and damage are avoided, 5.1		
	- accessible corners and edges	are rounded or chamfered	no remarks	pass
	- all other corners and edges	are free from burrs and/or sharp edges	no remarks	pass
	- ends of hollow components with a diameter greater than 7 mm and less than 12 mm where the accessible depth is greater than 10 mm	are closed or capped	no remarks	pass
	Movable and adjustable parts	shall be designed so that injuries and inadvertent operation are avoided, 5.1	no remarks	pass
	Load bearing part of the seating to come loose unintentionally	shall not be possible, 5.1	no remarks	pass
	All parts that are lubricated to assist sliding	shall be designed to protect users from lubricant stains when in normal use, 5.1		N/A
5.2	**Shear and squeeze points**			
5.2.1	Shear and squeeze points when setting up and folding	unless 5.2.2 or 5.2.3 are applicable, shear and squeeze points that are created only during setting up and folding, including tipping seat actions, are acceptable because the user can be assumed to be in control of his movements and to be able to cease applying the force immediately upon experiencing pain, 5.2.1		N/A
	The edges of parts moving relative to each other and creating shear and squeeze points	shall be as specified in 5.1		
5.2.2	Shear and squeeze points under influence of powered mechanisms	shall be no shear and squeeze points created by parts of the seating operated by powered mechanisms, 5.2.2		N/A
5.2.3	Shear and squeeze points during use - shear and squeeze points created by loads applied during normal use	shall be no shear and squeeze points, 5.2.3	no remarks	pass
	- hazard created by the weight of the user during normal movements and actions	are not acceptable, 5.2.3	no remarks	pass

Table 1. *(continued)*

Standard	Test and method, loads	Requirements	Test results	Pass/Fail or N/A*
5.3 Strength and durability, EN 12727:2016, table 1- Strength and durability Tests, test severity 1		**EN 12727:2016**		
6.4 EN 1728:2012	1. Seat static load and back static load test - seat force of 1300 N, - back force of 560 N - 10 cycles	a) there are no fracture of any member, joint or component, 5.3.2; b) there are no loosening of joints intended to be rigid, 5.3.2; c) the seating fulfils its functions, 5.3.2; d) the seating fulfils the safety requirements contained in 5.1 and 5.2, 5.3.2	no remarks	pass
6.5 EN 1728:2012	2. Seat front edge static load test, - seat force of 1300 N - 10 cycles		no remarks	pass
6.7 EN 1728:2012	3. Horizontal forward static load test on back rests			N/A
6.6 EN 1728:2012	4. Vertical load on back rests			N/A
6.10 EN 1728:2012	5. Arm rest sideways static load test, - force of 4000 N - 10 cycles			N/A
6.11 EN 1728:2012	6. Arm rest downwards static load test - force of 800 N - 10 cycles			N/A
6.17 EN 1728:2012	7. Combined seat and back durability test - seat load of 1000 N, - back load of 330 N - 50 000 cycles		no remarks	pass
6.18 EN 1728:2012	8. Seat front edge durability test, - seat load of 800 N - 50 000 cycles		no remarks	pass
A1 EN 12727:2019	9. Horizontal forward durability test on back rest			N/A
6.20 EN 1728:2012	10. Arm rest durability test			N/A
6.24 EN 1728:2012	11. Seat impact test - drop height of 180 mm - 10 cycles		no remarks	pass
6.25 EN 1728:2012	12. Back impact test - height of fall 210/38 mm/º - 10 cycles		no remarks	pass
6.26 EN 1728:2012	13. Arm rest impact test - height of fall 210/38 mm/º - 10 cycles			N/A
6.23 EN 1728:2012	14. Tipping seat operation - 25 000 cycles		no remarks	pass
6.14 EN 1728:2012	15. Vertical static test on auxiliary writing surfaces - force of 200 N - 10 cycles		no remarks	pass
6.22 EN 1728:2012	16. Auxiliary writing surfaces durability test - force of 150 N - 10 000 cycles		no remarks	pass

Table 1. *(end)*

Standard	Test and method, loads	Requirements	Test results	Pass/Fail or N/A*
7 Information for use EN 12727:2016		**EN 12727:2016**		
7	Information for use	shall be available in the language of the country in which it will be delivered to the end user. It shall contain at least the following details: a) information regarding the intended use; b) assembly instructions, where applicable; c) instruction for the maintenance of the item of seating	Information for use was not provided	N/T
Remarks, comments				

*N/A: not applicable

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Tests were carried by the engineer Laimonas Staškūnas