

## **CENTRE FOR TESTING AND CERTIFICATION - MECH-TEST**

## **Mechanical Laboratory**

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Date 9.03.2021

# TEST REPORT NO. *CBC-030/2021*

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Subject of testing:

Shower stool

Classification according to

Type / Model:

Manufacturer:

Shower stool

PN-EN ISO 9999:2017-02:09 33 03

Item no./Art.Nr: 30207X

Number of specimens: 1

SN:

0001

MOBILEX A/S Grønlandsvei 5

DK - 8660 Skanderborg

Applicant:

A-Net s.c.

93-469 Łódź.

ul. Łaskowice174

Kind of testing

Testing scope according to application of Client

Mechanical testing according to PN-EN 12182:2012:

PN-EN 581-2:2016-02; PN-EN 1022:2019-03

Test started: 3.03.2021

Test finished: 9.03.2021

Approved by:

DYREKTOR

mgr inż. Andrzej Tkaczyk

Special comments / enclosures:

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Test results reported here are not applicable to the further modifications of the product affecting its structure, material or technology. This test report shall be neither copied differently as in the whole nor be published without written consent of the Laboratory.



PHOTO OF PRODUCT



Height of armrests of the seat: 180mm

Diameter of tip: 35 mm

Diameter of the rotation: 820mm - 880mm







Length: 510-590 mm

Length of seat: 330 mm Width of seat: 500 mm



MOBILEX A/S Grønlandsvej 5 DK - 8660 Skanderborg Tel: +45 87 93 22 20



CE

Max. width = 68.5 cm

21.02.23

Max. 250 kg



Shower stool Item nr. 30207X

Produced

0001



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### **TESTING**

NORMATIVE REFERENCES	Applied
PN-EN 12182:2012 Technical aids for disabled persons – General requirements and test methods	YES
PN-EN 581-1:2017-04 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 1: General safety requirements.	NO
PN-EN 581-2:2016-02 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 2: Mechanical safety requirements and test methods for seating.	YES
PN-EN 581-3:2017-03 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 3: Mechanical safety requirements and test methods for tables.	NO
PN-EN 1022:2019-03 Domestic furniture. Seating. Determination of stability.	YES
PN-EN 1728:2012 Domestic furniture. Seating. Test methods for the determination of strength and durability.	YES
EN 1730:2013-04 Domestic furniture. Seating. Test methods for the determination of strength, durability and stability.	NO
ISO 7176-1:2014 Wheelchairs – Determination of static stability	YES
	7. 7

NOTE: During the visual inspection performed before testing, no manifest defects which may affect test results were detected

## **TESTS OF SEATINGS**

Requireme nts according to clause	Test method according to clause	Ch	necked characteristics/assemblies/parameters	Real value	Test result	Comments
7.2	EN 1728 cl. 6.4		Seat static load and back static load test	Conf.	Pos.	Seat:1600/750N - 10x10s(±2s)+ 1x 30min(±10s); Backrest: 410N 10x10s(±2s)+ 1x 30min(±10s)
7.2	EN 1728 cl. 6.5		Seat front edge static load test	Conf.	Pos.	Seat: 1300/750N - 10x 10s(±2s) + 1x 30min(±10s)
7.2	EN 1728 cl. 6.17		Combined seat and back durability test	Conf.	Pos.	25 000 cycles- <b>Seat:</b> 1000/ <del>750N</del> , <b>Backrest:</b> 100Nm → (333N)
7.2	EN 1728 cl. 6.19		Durability test on seating with a multi-position back rest		N/A	only seats with adjustable rest
7.2	EN 1728 cl. 6.11		Arm rest static load test	Conf.	Pos.	vertical force 700 N
7.2	EN 1728 cl. 6.20		Arm rest durability test	Conf.	Pos.	10 000 x 400 N
7.2	EN 1728 cl, 6.15		Leg forward static load test	Conf.	Pos.	Seat: vertical force - 1000N, horizintal force 300N x 10
7.2	EN 1728 cl. 6.16		Leg sideways static load test	Conf.	Pos.	Seat: vertical force - 1000N, horizintal force 300N x 10
7.2	EN 1728 cl. 6.24	7	Seat impact test	Conf.	Pos.	drop height – 180mm – 10 cycles (load 250N)
7.2	EN 1728 cl. 6.8	Table	Foot rest static test		N/A	
EN 1022 cl. 6.1	EN 1022 cl. 6.2	I	Forward stability (all seatings)	Conf.	Pos.	vertical force - 600N, horizintal force 20N, 5s NOTE 2
EN 1022 cl. 6.1	EN 1022 cl. 6.3		Forward stability (seatings with footrest)		N/A	
EN 1022 cl. 6.1	EN 1022 cl. 6.6		Rearward stability (all seatings with back)		N/A	
EN 1022 cl. 6.1	EN 1022 cl. 6.4		Sideways stability (all seatings without arm rest)		N/A	200
EN 1022 cl. 6.1	EN 1022 cl. 6.5		Sideways stability (all seatings with arm rest)	Conf.	Pos.	Horizontal force: armrest – 20N Vertical force: seat – 600N, armrest – 350N NOTE 3
EN 1022 cl. 7.1	EN 1022 cl. 7.3		Stability of seatings which have variable geometry (canting seats)		N/A	
EN 1022 cl. 7.1	EN 1022 cl. 7.4		Stability of seatings which have variable geometry (rocking seat)		N/A	
EN 1022 cl. 7.1	EN 1022 cl. 7.5		Stability of seatings which have variable geometry (seats with extended footrest)		N/A	

NOTE: Number of users for a piece of furniture for sitting = 1. (EN 1176-1:2008, cl. A.3.3)



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		TEST RI	ESULTS according to PN-E	N 1218	2:201	2						
Requirement s according to clause	Test method according to clause	charact	Checked eristics/assemblies/parameters	Test result		NOTIFICATION OF THE PROPERTY O			eu			Comments
4.1	4.8, 5.2, 5.4.2, 5.5, 6, 8.2.1, 9.4, 10, 22, 24 i EN 1441	Risk analysis										
4.2	V/I	Expected char	acteristics and technical documentation	C	onf.	Pos.						
4.3	EN ISO 14155	Clinic assessm	nent			N/T						
4.4	V/I	Technical supp	port which can be dismantled	C	onf.	Pos.						
4.5	V/I	Single use con	nections	C	onf.	Pos.						
4.6	V/I	Boundary valu	nes of user weight	C	onf.	Pos.						
4.7	V/I	Immobilising	means			N/A						
4.8	V/I, C5	impairment	he product for people with cognitive			N/T						
4.0		documentation	of the description in the manufacturer's			N/T						
	EN (0(01 1 0	Materials				NI/T						
5.1	EN 60601-1-9	Recycling				N/T						
5.2	V/I, B 5.2	Flammability	111 11 11			N/A						
5.2.2	V/I		arts, mattresses, bed bases and bedding			N/A N/A						
5.2.3	V/I, EN 1021	Upholstered p										
5.2.4	V/I, EN 597	Mattresses and	d bed bases			N/A						
5.2.5	V/I. EN ISO 12952	Bedding				N/A						
5.2.6	V/I. EN 60695-11-10	Moulded parts				N/A						
5.3	EN ISO 10993-1 Annex. D	Biological cor	formity and toxicity			N/T						
5.4	V/I	Contaminants	and residues			N/A						
	V/I.,B.5.5.1	200	Cleaning	C	onf.	Pos.						
	V/I.,B.5.5.1	logica ns and nation	Disinfection			N/A						
5.5	V/I., EN ISO 22442-1 B.5.5.2	Microbiolog I infections contaminat	Animal tissue			N/A						
5.6	EN ISO 9227	Resistance to	corrosion			N/T	NOTE 8					
6		Emitted soun	d and vibration									
6.1	EN ISO 3746 B6	Noise and vib				N/A						
6.2	EN ISO 3746		and frequencies of audible warning device	S		N/A						
6.3	EN ISO 3746	Feeedback			N/A							
7	EN 60601-1-2 7.2, 7.3, 7.4	172	ic compatibility		N/A	-						
8	777	Electrical safet			N/A		0.5000000000000000000000000000000000000					
9	V/I		lage, leakage, and ingress of liquids		N/A	-	$t^0 \le 41^0 C$					
10	V/I. Measur.	Surface tempe	rature		N/A	heat of dir EN requi persons wi (who do	ement does not concern ect solar radiation - PN 12182,clause 10a rement concerns only th insensitiveness of ski not feel heat) - PN-EN 2182,clause 10d					
11	V/I	Sterility			N/A							
12	V/I. Measur.	Safety of mov	ing parts	Conf.	Pos.	Note	in service manual					



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Requirement s according to clause	Test method according to clause		Checked characteristics/assemblies/parameters	Test result	Opinion	Co	mments		
13	V/I. Me	V/I. Measur. Prevention of traps for parts of the human body Conf. Pos.					Note in service manual		
14	V/I	[	Folding and adjusting mechanisms	Conf.	Pos.	Note in .	Note in service manual		
15	V/I. Me	asur.	Carrying handles		N/A	Mass of product			
16	V/I. Me	asur.	Assistive products which support or suspend users	Conf.	Pos.	tested accor	ow 20 kg ding to. El VOTE 1	V 581-2	
17	V/I. Me	asur.	Portable and mobile assistive products	Conf.	Pos.				
18	V/I, B	18	Surfaces, corners, edges and protruding parts	Conf.	Pos.				
19	B 19	9	Hand held assistive products		N/A				
20	B 20	0	Small Parts	Conf.	Pos.				
21	V/I. Me EN 606	01-1	Stability	Conf.	Pos.	tested accor	ding to. EN	V 581-2	
22	B 22,		Forces in soft tissues of the human body	Conf.	Pos.				
23	V/I. EN 61		Ergonomic principles		N/T	The requirements relate to design process			
Require ments accordi ng to clause	Test method accordin g to clause		Checked characteristics/assemblies/p	arameter	s	Real valu e	Test result	Com men ts	
24	V/I		irements for information supplied by the manufactu	rer					
24.1		Gene					N/T		
24.2	V/I		uctions for use ale Information				N/T N/T	-	
24.2.1	<b>V</b> /1	a) in b	nformation on how to obtain the user information in a for by people with visual, eading orcognitive disabilities	se	N/T				
			Il information shall as far as possible be available in Pict		N/T	-			
		_	description of the intended use and the intended environ		N/T	-			
		e) if	naintenance instructions, if applicable;  f an assistive product is intended to be cleaned, a desind suitable cleaning materials, including precautions neplicable;	eeded to avo	oid corrosion	ı, if	N/T N/T		
		a	f an assistive product is intended to be disinfected, a de nd suitable materials, including any precautions needed pplicable;		N/T				
		is	N/T						
24.2.1	V/I		he mass expressed in kilograms if the assistive product ny removab!e parts that has a mass which is heavier tha	as	N/T				
		tł	f the assistive product is supposed to be used in combinate manufacturer shall state to which products, and how tway;		N/T				
		j) w	varning about dangerous combinations of devices (e.g. prevention of decubitus ulcers often only work on corresponding to the combinations of flame resistant and non-flame resistant	ect seat surf			N/T		
		k) a list of accessories, detachable parts and materials that the manufacturer has determined as being intended for use with the assistive product							
		if a programmable controller is fitted, information on the method of programming, the competence required to carry out the programming and the effects on performance							



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Require ments accordi ng to clause	Test method accordin g to clause	Checked characteristics/assemblies/parameters	Real valu e	Test result	Com men ts
-	ciause	m) operator control adjustments		N/T	
		whether and how the assistive product can be folded or dismantled to assist in storage or transport		N/T	
		o) instructions regarding transport of the assistive product (e.g. in a car or aeroplane)		N/T	
		p) measured sound power level		N/T	-
24.2.2	V/I	User information  User information shall be provided by the manufacturer with each assistive product.  Information shall contain all pre-sale warnings and informations and the following as applicable for each assistive product:		N/T	
		a) the location and the type of identification number/word on the assistive product shall be given for the unique identification number of the assistive product		N/T	
		b) the intended user		N/T	
		c) any adjustment or settings required before the assistive product can be used and information on how adjustments or settings affect the assistive product		N/T	
		d) information on adjustment possibilities and the competence required to carry out these adjustments		N/T	
		e) instructions on operation of all controls		N/T	
		f) the battery type and nominał vottage	1	N/T	
		g) instructions for battery maintenance		N/T	
		h) instructions for operating the battery charger, including warnings regarding any potential safety hazards (e.g. a possibility of gaś accumulating in the charging area);		N/T	
		i) instructions on dismantting and re-assembly of the assistive product or any removable parts;		N/T	
		<ul> <li>the positions of points where the component parts can be gripped for safe moving and handling and/or a method for handling during dismantling, assembly or carrying;</li> </ul>		N/T	
		k) a warning if surface temperatures can increase / decrease when exposed to external sources of heat or cold (e.g. sunlight, outdoor environment);		N/T	
		l) a warning if the assistive product might disturb the operation of devices in its environment that emit electromagnetic fields (e.g. alarm systems of shops, automatic doors, etc.);		N/T	
		m) a warning if the performance of the assistive product can be influenced by electromagnetic fields {e.g. those emitted by portable telephones, electricity generators or high power sources);		N/T	
		n) if the intended purpose of an assistive product cannot be met without a hazard {e.g, holes, V-shaped opening), a warning and instructions on howto operatethe assistive product safely;		N/T	
		o) if the intended purpose of an assistive product cannot be met without a hazard due to moving parts such as sgueezing, a warning and instructions on how to operate the assistive product safely;		N/T	
		p) the level of resistance to ignition of materials and assemblies;		N/T	
24.2.2	V/I	q) information on the recycling of used batteries and other parts of the assistive product;		N/T	
		r) expected lifetime of the assistive product.		N/T	
1		- It is recommended to include instructions on how to sotve simple problems for the ease of use.		N/T	
24.2.3	V/I Se	ervice information			
	T	he service information shall contain all the pre-sale information, user information and astructions necessary for the maintenance, adjustment and repair of the assistive product		N/T	
	aı	nd for the replacement of parts.  the service information shall contain all the pre-sale information and the user information.		N/T	
	T	he service information shall be sufficiently detailed concerning preventive inspection,			
	m	naintenance and calibration, including the frequency of such maintenance.  The service information shall provide information for the safe performance of such		N/T	
	ro	butine maintenance necessary to ensure the continued safe use of the assistive product.		N/T	



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		Additionalty, the service information shall identify the parts on which preventive inspection and maintenance shall be performed by service personnel, including the periods to be applied and details about the actual performance of such maintenance.		N/T		
24.3	V/I	Labelling		N/T		
		- year of production for the product		N/T		
		- Detachabfe parts of an assistive product with a mass of more than 10 kilograms shall be marked with the actual mass on the part.		N/T		
		- Symbole for use in the labelling of medical devices shall be in accordance with EN 980		N/T		
25	V/I	Packaging		N/T	Note 4	

Pos. – positive; Neg – negative; N/T – not tested; N/A – not applicable; N/R – not required, N/O – not occurred, V/I. – visual inspection, Conf. - conformed.

- NOTE 1: Static load test  $-250kg \times 1.5 = 375kg$  (70 sec). Test result: Positive
- NOTE 2: Forward stability. Load of seat: vertical force 600N, horizontal force 20N. The product does not lose stability. Test result: Positive

  A horizontal force was increased to 200N. The product does not lose stability.
- NOTE 3: Sideways stability. Load of seat: vertical force 600N,. Load of armrest: vertical force 350N, horizontal force 20N. The product does not lose stability. Test result: Positive A horizontal force was increased to 200N. The product does not lose stability.
- NOTE 4: Assessment of package, clause 25 concerns risk of threats caused by improper protection against damage, fall or impurity during storage and transport to place of use
- NOTE 5: Conformity assessment of product according to standard requirements refer to the scope of mechanical tests ordered by client
- NOTE 6: During visual inspection before testing any visible defects that can have an effect on test results were not stated.
- NOTE 7: Sample/object for testing was delivered to the Laboratory by the Orderer.
- NOTE 8: The risk of corrosion that affects the safety of the users should be evaluated in the risk analysis.
- NOTE 9: Additional tests were performed according to EN 581-2:2016-02 (method EN 1728 cl. 6.4)

  The seat was loaded with a vertical load downwards 4000 N.

  The product has not been damaged.
- NOTE 10: Additional stability tests were performed according to ISO 7176-1:2014.

Rear stability  $-18^{\circ}$ ,

Frontal stability – 19°,

Lateral stability  $-15^{\circ}$ ,

In the lateral stability test on incline  $15,0^0$ , the product loses its stability due to damage / breaking of the legs.

#### **CONCLUSIONS:**

Testing object conforming with requirements of:

PN-EN 581-2:2016-02

PN-EN 1022:2019-03

PN-EN 12182:2012

- END -

