



# CENTRE FOR TESTING AND CERTIFICATION - MECH-TEST

## Mechanical Laboratory

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Date 16.02.2016

### TEST REPORT NO. **CBC-138/2015**

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Subject of testing: *Bathroom chair with backrest*

Classification according to

PN-EN ISO 9999:2011 : 09 33 03

Type / Model: *Shower stool*

Item no./Art.Nr: 302070

302070+302075

Manufacturer: *MOBILEX A/S  
Grønlandsvej 5  
DK – 8660 Skanderborg*

SN: D305B15060

Number of specimens: 1

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;  
EN 581-2:2009; EN 1022:2005; ISO 7176-1:1999*

Test started: *1.12.2015 r.*

Test finished: *16.02.2016*

Approved by:

**DYREKTOR**

  
mgr inż. Andrzej Tkaczyk

Special comments / enclosures:

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Test results refer only to tested units.

Test results reported here are not applicable to the further modifications of the product affecting its structure, material or technology.

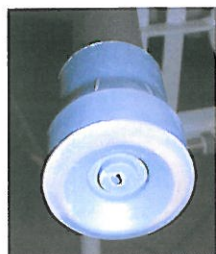
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## CHARACTERISTIC OF PRODUCT


Name of product: <b>SHOWER STOOL</b>	Item no./Art. Nr: <b>302070, 302070+302075</b>
Mass of product: <b>3,175 kg, 4,515 kg</b>	Maximum permissible user mass: <b>150 kg</b>
Width of the product: <b>510 mm</b>	Height: <b>604-773mm / 793-962mm</b>
Height of armrests of the seat: <b>184mm</b>	Length: <b>508-602 mm</b>
Diameter of the rotation: <b>720mm – 790mm</b>	Length of seat: <b>335 mm</b>
Diameter of tip: <b>35 mm</b>	Width of seat: <b>410 mm</b>

## PHOTO OF PRODUCT



**Mobilex**  
MOBILEX A/S  
Grønlandsvej 5  
DK - 8660 Skanderborg  
Tel: +45 87 93 22 20  
www.mobilex.dk

**Shower stool**

  
Max. 150 kg

**CE** Produced 07. 2015 **Serial no.** D305B15060

## TESTING

NORMATIVE REFERENCES	Applied
PN-EN 12182:2012 Technical aids for disabled persons – General requirements and test methods	YES
EN 581-1:2006 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 1: General safety requirements.	NO
EN 581-2:2009 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 2: Mechanical safety requirements and test methods for seating.	YES
EN 581-3:2007 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 3: Mechanical safety requirements and test methods for tables.	NO
EN 1022:2005 Domestic furniture. Seating. Determination of stability.	YES
EN 1728:2000 Domestic furniture. Seating. Test methods for the determination of strength and durability.	YES
EN 1730:2002 Domestic furniture. Seating. Test methods for the determination of strength, durability and stability.	NO
ISO 7176-1:1999 Wheelchairs – Determination of static stability	YES

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

TESTS OF SEATINGS

## RESULT OF MECHANICAL TESTS ACCORDING TO EN 581-2:2009

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
6.2	EN 1728 cl. 6.2.1	Seat and back static load test	Conf.	Pos.	Seat: 1600N – 10x10s(±2s) + 1x 30min(±10s); Backrest: 410N 10x10s(±2s) + 1x 30min(±10s)
6.2	EN 1728 cl. 6.2.2	Seat front edge static load test	Conf.	Pos.	Seat: 1300N - 10x 10s(±2s) + 1x 30min(±10s)
6.2	EN 1728 cl. 6.7	Seat and back fatigue test for seating	Conf.	Pos.	25 000 cycles – Seat: 1000N, Backrest: 100Nm → (340N)
6.2	EN 581-2 Aneks A	Fatigue test on back locking mechanism	--	N/A	only seats with adjustable rest
6.2	EN 1728 cl. 6.6	Arm rest downwards static load test	Conf.	Pos.	700 N
6.2	EN 1728 cl. 6.10	Arm rest fatigue test	Conf.	Pos.	10 000 x 400 N
6.2	EN 1728 cl. 6.12	Leg forward static load test	Conf.	Pos.	Seat: vertical force - 75kg, horizontal force 300N
6.2	EN 1728 cl. 6.13	Leg sideways static load test	Conf.	Pos.	Seat: vertical force - 75kg, horizontal force 300N
6.2	EN 1728 cl. 6.15	Seat impact test	Conf.	Pos.	drop height – 180mm – 10 cycles (load 250N)
6.2	EN 1728 cl. 6.4	Footrest, foot brace and foot rail static test	--	N/A	
EN 1022 cl. 6.1	EN 1022 cl. 6.2	Forward stability (all seatings)	Conf.	Pos.	vertical force - 600N, horizontal force 20N, 5s (fig.1)
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)	Conf.	Pos.	Seat: vertical force - 600N, Backrest: horizontal force 109N, (fig.2)
EN 1022 cl. 6.1	EN 1022 cl. 6.4	Sideways stability (all seatings without arm rest)	--	N/A	
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 – 250N, armrest – 350N (fig.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	

Table 1

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
7.1	V/I	Content of service manual:			
		Required mention: „Important, retain for future reference: read carefully”	--	N/T	Character's dimension not less than 5mm
		Name and address of the producer or supplier	--	N/T	
		Information regarding maintenance	--	N/T	
		Conditions of use	--	N/T	camping, domestic or contract
		User manual in language of the country in which the table will be marketed	--	N/T	
7.2	V/I	Presence of a pictogram (fig. 1) in the case of mobile loungers not intended to be lifted or displaced under load	--	N/A	

### TEST RESULTS according to PN-EN 12182 : 2012

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Test result	Opinion	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	--	N/T	
4.2	V/I	Expected characteristics and technical documentation	Conf.	Pos.	
4.3	EN ISO 14155	Clinic assessment	--	N/T	
4.4	V/I	Technical support which can be dismantled	Conf.	Pos.	
4.5	V/I	Single use connections	Conf.	Pos.	
4.6	V/I	Boundary values of user weight	Conf.	Pos.	
4.7	V/I	Immobilising means	--	N/A	
4.8	V/I, C5	Suitability of the product for people with cognitive impairment	--	N/T	
		The presence of the description in the manufacturer's documentation	--	N/T	
		<b>Materials</b>			
5.1	EN 60601-1-9	Recycling	--	N/T	
5.2	V/I, B 5.2	Flammability	--	N/A	
5.2.2	V/I	Upholstered parts, mattresses, bed bases and bedding	--	N/A	
5.2.3	V/I, EN 1021	Upholstered parts	--	N/A	
5.2.4	V/I, EN 597	Mattresses and 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 conformity and toxicity	--	N/T	
5.4	V/I	Contaminants and residues	--	N/A	
5.5	V/I, B.5.5.1	Microbiological infections and contamination	Cleaning	Conf.	Pos.
	V/I, B.5.5.1		Disinfection	--	N/A
	V/I, EN ISO 22442-1 B.5.5.2		Animal tissue	--	N/A
5.6	EN ISO 9227	Resistance to corrosion	--	N/T	
6		<b>Emitted sound and vibration</b>			
6.1	EN ISO 3746 B6	Noise and vibration	--	N/A	
6.2	EN ISO 3746	Sound levels and frequencies of audible warning devices	--	N/A	

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
6.3	EN ISO 3746	Feedback	--	N/A	
7	EN 60601-1-2 7.2, 7.3, 7.4	Electromagnetic compatibility	--	N/A	
8		Electrical safety	--	N/A	
9	V/I	Overflow, spillage, leakage, and ingress of liquids	--	N/A	
10	V/I. Measur.	Surface temperature	--	N/A	$t \leq 41^{\circ}\text{C}$ ■ requirement does not concern heat of direct solar radiation - PN-EN 12182, clause 10a ■ requirement concerns only persons with insensitiveness of skin (who do not feel heat) - PN-EN 12182, clause 10d
11	V/I	Sterility	--	N/A	
12	V/I. Measur.	Safety of moving parts	Conf.	Pos.	Note in service manual
13	V/I. Measur.	Prevention of traps for parts of the human body	Conf.	Pos.	
14	V/I	Folding and adjusting mechanisms	Conf.	Pos.	
15	V/I. Measur.	Carrying handles	--	N/A	Mass of product below 20 kg
16	V/I. Measur.	Assistive products which support or suspend users	Conf.	Pos.	tested according to. EN 581-2 NOTE 1
17	V/I. Measur.	Portable and mobile assistive products	Conf.	Pos.	
18	V/I, B 18	Surfaces, corners, edges and protruding parts	Conf.	Pos.	
19	B 19	Hand held assistive products	--	N/A	
20	B 20	Small Parts	Conf.	Pos.	
21	V/I. Measur. EN 60601-1	Stability	Conf.	Pos.	tested according to. EN 581-2
22	B 22, V/I	Forces in soft tissues of the human body	Conf.	Pos.	
23	V/I. EN 614-1	Ergonomic principles	--	N/T	The requirements relate to the design process

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
24	V/I	<b>Requirements for information supplied by the manufacturer</b>			
24.1		<b>General</b>	--	N/T	
24.2		<b>Instructions for use</b>	--	N/T	
24.2.1	V/I	<b>Pre-sale Information</b>	--	N/T	
		a) information on how to obtain the user information in a format appropriate for use by people with visual, reading or cognitive disabilities	--	N/T	
		b) all information shall as far as possible be available in Pictogram	--	N/T	
		c) a description of the intended use and the intended environment;	--	N/T	
		d) maintenance instructions, if applicable;	--	N/T	
		e) if an assistive product is intended to be cleaned, a description of the method and suitable cleaning materials, including precautions needed to avoid corrosion, if applicable;	--	N/T	
		f) if an assistive product is intended to be disinfected, a description of the method and suitable materials, including any precautions needed to avoid corrosion, if applicable;	--	N/T	
		g) the overall dimensions (width, length and height) of the assistive product, expressed in millimetres, and its mass, expressed in kilograms, when it is ready for use and, if applicable, when it is folded or dismantled	--	N/T	

24.2.1	V/I	h) the mass expressed in kilograms if the assistive product can be dismantled or has any removable parts that has a mass which is heavier than 10 kg;	--	N/T	
		i) if the assistive product is supposed to be used in combination with other products, the manufacturer shall state to which products, and how this can be done in a safe way;	--	N/T	
		j) warning about dangerous combinations of devices (e.g. cushions for the prevention of decubitus ulcers often only work on correct seat surface) and combinations of flame resistant and non-flame resistant material;	--	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	--	N/T	
		l) 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	--	N/T	
		m) operator control adjustments	--	N/T	
		n) 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	<b>User information</b>			
		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 nominal voltage	--	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 gas accumulating in the charging area);	--	N/T	
		i) instructions on dismantling and re-assembly of the assistive product or any removable parts;	--	N/T	
		j) 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;	--	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 how to operate the 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 squeezing, 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;	--
		r) expected lifetime of the assistive product.	--	N/T	
		- It is recommended to include instructions on how to solve simple problems for the ease of use.	--	N/T	

24.2.3	V/I	Service information			
		The service information shall contain all the pre-sale information, user information and instructions necessary for the maintenance, adjustment and repair of the assistive product and for the replacement of parts.	--	N/T	
		The service information shall contain all the pre-sale information and the user information.	--	N/T	
		The service information shall be sufficiently detailed concerning preventive inspection, maintenance and calibration, including the frequency of such maintenance.	--	N/T	
		The service information shall provide information for the safe performance of such routine maintenance necessary to ensure the continued safe use of the assistive product.	--	N/T	
		Additionally, 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	
		- Detachable 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	
		- Symbols for use in the labelling of medical devices shall be in accordance with EN 980	--	N/T	
25	V/I	Packaging	--	N/T	Note 2

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.

### TEST RESULTS according to ISO 7176-1

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Test result	Opinion	Comments
PN-EN 12183	9.	Static stability of product facing up to the slope (backwards)	17,0°	N/R	When static stability backwards is below 10° anti-overturn supports are required
	10.	Static stability of product positioned backwards up to the slope	18,0°	N/R	
	12.	Static stability of product positioned sideward up to the slope *)	11,0°	N/R	
*) With the slope of the ramp above 11,0° leg side are damaged					

N/R – not required

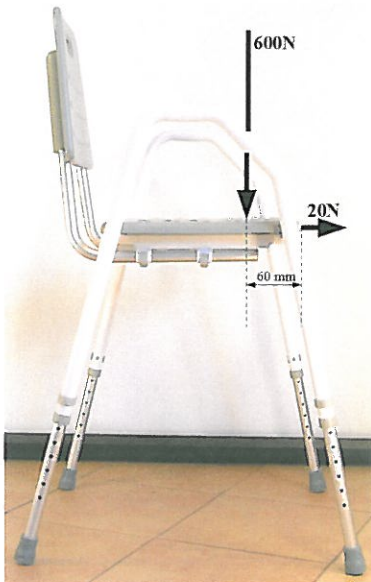


Fig.1

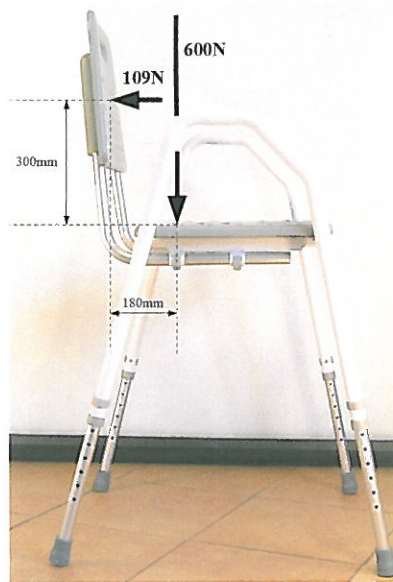


Fig.2



Fig.3

NOTE 1: Static load test –  $150\text{kg} \times 1,5 = 225\text{kg}$  (70 sec). Test result: Positive

NOTE 2: 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 3: Conformity assessment of product according to standard requirements refer to the scope of mechanical tests ordered by client

NOTE 4 : During visual inspection before testing any visible defects that can have an effect on test results were not stated.

NOTE 5: Sample/object for testing was delivered to the Laboratory by the Orderer.

### CONCLUSIONS:

Testing object **conforming** with requirements of :

EN 581-2:2009

EN 1022:2005

PN-EN 12182:2012

- END -