



CENTRE FOR TESTING AND CERTIFICATION - MECH-TEST

Mechanical Laboratory

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Date 17.01.2023

TEST REPORT NO. **CBC-008/2023**

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Subject of testing: *Walking aids with built-in handgrips and three or more legs of which two or more are having wheels, which provide support whilst walking* **Classification according to** PN-EN ISO 9999:2017-02 : 12 06 06

Type / Model: *Puma Air rollator*

REF: 312501

SN: 0001

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

Number of specimens: 1

Applicant: *A-Net s.c.
93-469 Łódź,
ul. Łaskowice174*

Kind of testing *Mechanical testing for conformity with EN ISO 11199-2 : 2021*

Test started: 12.01.2023

Test finished: 17.01.2023

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.

This test report shall be neither copied differently as in the whole nor be published without written consent of the Laboratory.




CHARACTERISTIC OF PRODUCT

Name : <i>Puma Air rollator</i>	Dimension of rollator: --
REF: <i>312501</i>	SN: <i>0001</i>
Maximum permissible user mass: <i>150 kg</i>	Mass of rollator: <i>9,785 kg</i>

Description		PHOTO OF PRODUCT	
Elements/parameters/materials/dimensions	Comments		
Dimensions of walking rollator (fig. 2 PN-EN ISO 11199-2)	Distance between handgrips (dimension 2)	476 mm – 480 mm	
	Angle between of handgrip axis and direction of movement (α)	0°	
	Height of rollator (dimension 6)	860/818 mm	min.
		990 mm	max.
	Width of rollator (dimension 5)	630 mm	
	Turning width (dimension 1)	924 mm	
	Length of rollator (dimension 4)	764 mm	
Dimensions of folded rollator (mm)		764 x 850 x 256	
Fig. 3	Handgrip - diameter	35 mm	Anatomical handgrip
	Handgrip - length	121 mm	
Wheels of rollator	Front wheels – quantity	2	castor wheels
	Front wheels - diameter	293 mm	
	Front wheels – width	32/46 mm	
	Front wheels - brake	none	
	Rear wheels – quantity	2	
	Rear wheels - diameter	293 mm	
	Rear wheels - width	32/46 mm	
Rear wheels - brake	Included		
Tip	Diameter	none	
	Material	none	
	Colour	none	
Material of rollator (fig. 1)	Front legs	Aluminum,	
	Bracing member (no. 8)	Hard plastic,	
	Rear legs	Bolts, nuts	
	Height adjusting device (no. 4)		
	Handgrip (no 5), Brake elements	Hard plastic	






Mobilex
a better life in motion

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


Puma Air rollator

REF 312501

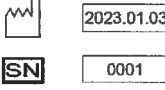
≤ 150 kg
← 65 cm →
≤ 5 kg





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2023.01.03




SN 0001









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2023.01.03



SN 0001



RESULT OF TESTS ACCORDING TO EN ISO 11199-2:2021

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
6.1	ISO 14971 ISO 12100	Risk analysis	--	N/T	
6.2	V/I	Rollators that can be dismantled	--	N/A	
6.3	V/I	Fasteners	--	N/A	
6.4	V/I	User mass / load limit	Conf.	Pos.	
6.5	V/I	Equipment of the rollator used inside the premises	Conf.	Pos.	
		• front wheel diameter $\geq 75\text{mm}$	Conf.	Pos.	293 mm
		• the presence of two parking brakes	Conf.	Pos.	
6.5	V/I	Equipment of the rollator used outdoors	Conf.	Pos.	
		• front wheel diameter $\geq 180\text{mm}$	Conf.	Pos.	293 mm
		• front wheel width $\geq 22\text{mm}$	Conf.	Pos.	32 mm
		• the presence of two driving brakes	Conf.	Pos.	
		• the presence of two parking brakes	Conf.	Pos.	
6.6		Brakes			
	6.6.1 V/I	Ease of use of the brakes when moving a rollator with more than 2 wheels	Conf.	Pos.	
	6.6.1 V/I	The occurrence of parking brakes in a rollator with more than 2 wheels and a seat for rest, or intended for outdoor use	Conf.	Pos.	
	6.6.1 Measur.	Distance to the brake lever (fig. 3)	Conf.	Pos.	74mm ($\leq 75\text{ mm}$)
	6.6.1 V/I	Ability to compensate for brake wear	Conf.	Pos.	
	6.6.1 V/I	No negative effect on the brake performance when folding, unfolding or adjusting the rollator	Conf.	Pos.	
	6.6.1 V/I	Possibility of adjusting settings (e.g. height) without using tools	Conf.	Pos.	
6.6.2		Brake effectiveness			
	6.6.2.1 Measur.	Parking brake activation/release force	50/30N Conf.	Pos.	$\leq 60\text{ N pushing}$ $\leq 40\text{ N pulling}$
	6.6.2.2	The effectiveness of the travel brake	Conf.	Pos.	Movement of rollator $\leq 10\text{ mm in 1 minute}$
	6.6.2.2	The effectiveness of the parking brake	Conf.	Pos.	Movement of rollator $\leq 10\text{ mm in 1 minute}$
6.6.3.1	6.6.3.2	Durability of brakes	Conf.	Pos.	100 000 cycles $f \leq 0,5\text{Hz}$
6.7	Measur.	Handgrip	35mm Conf.	Pos.	Width of handgrip $\geq 20\text{mm}$ and $\leq 50\text{mm}$
	7.1	Recycling			
7.2.1	ISO 8191-2	Flammability	--	N/T	
7.2.2	ISO 8191-2	Upholstered parts	--	N/T	
7.3	ISO 10993-1	Biocompatibility and toxicity	--	N/T	
7.4		Infection and microbiological contamination	--	N/T	
	7.4.2	Cleaning and disinfection	--	N/T	
7.5	ISO 9227	Resistance to corrosion	--	N/T	
8	V/I	Ingress of liquids	--	N/A	
9	V/I, Measur.	Temperatures of parts that come in contact with human skin			$P \leq 41^\circ\text{C}$ ■ 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
10	10.1, V/I, Measur	Safety of moving parts	Conf.	Pos.	
11	11.1, V/I, Measur	Holes and clearances	Conf.	Pos.	
	11.2, V/I, Measur	V-shape openings	Conf.	Pos.	

RESULT OF TESTS ACCORDING TO EN ISO 11199-2:2021

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
12	V/I	Folding, adjusting and locking mechanisms	Conf.	Pos.	
	12.3	Locking mechanisms	Conf.	Pos.	
13	V/I, Measur	Carrying handles			
		Presence of the handling devices (e.g. handles) in components of mass greater than 10 kg, or	–	N/A	
		Information indicating the points where components can be lifted and describing how they shall be handled during disassembly, lifting, carrying and assembly available	–	N/A	
14	V/I	Surfaces, corners and edges	Conf.	Pos.	
15.1	15.2.1	Forward-direction stability	18,8 ⁰ Conf.	Pos.	Stability required $\geq 15^\circ$
15.1	15.2.2	Backward-direction stability	13,9 ⁰ Conf.	Pos.	Stability required $\geq 7^\circ$
15.1	15.2.3	Sideway-direction stability	4,7 ⁰ Conf.	Pos.	Stability required $\geq 3,5^\circ$
15.1	15.2.4	Stability – with loaded basket, bag, drip, oxygen cylinder			
		forwards	17,3 ⁰ Conf.	Pos.	
		backwards	17,3 ⁰ Conf.	Pos.	
		side	6,0 ⁰ Conf.	Pos.	
16.1.2	16.1.3	Static strength of resting seat	Conf.	Pos.	1 minute under load 1,2 x user's weight $\pm 2\%$ (180kg)
16.2.2	16.2.3	Static strength of the rollator	Conf.	Pos.	loading 180kg $\pm 2\%$, 1min. NOTE 1
16.3.2	16.3.3	Strength of backrest	–	N/A	1,2 x user's weight $\pm 2\%$ x 60sek, x 10 cycles
17.1	17.2	Durability test	Conf.	Pos.	200 000 cycles with load. 120kg $\pm 2\%$, f=1Hz
Information marked on the product					
20.2	V/I	a) manufacturer's model identification name and/or numb.	–	N/T	
		b) whether or not the rollator is designed for indoor or outdoor use	–	N/T	
		c) maximum user mass	–	N/T	
		d) name or trade name and address of the manufacturer or authorized representative according to local requirements	–	N/T	
		e) year and month of manufacture	–	N/T	
		f) maximum safe working load (to be marked on the accessories	–	N/T	
		g) maximum width of the rollator	–	N/T	
		h) maximum allowed angle between the longitudinal centre line of the handle and the direction of motion, if the handles are sideways adjustable	–	N/T	
		i) all information shall as far as possible be available in Pictogram in accordance with ISO 7000 and ISO 15223-1	–	N/T	
Instruction manual					
20.3	V/I	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) a description of the intended use including intended user and the intended environment	–	N/T	
		c) maximum user mass	–	N/T	
		d) maximum safe working load for load carrying accessories such as basket, tray, shopping bag, etc	–	N/T	
		e) minimum and maximum height of the rollator	–	N/T	
		f) maintenance instructions, if applicable	–	N/T	
		g) if the rollator is intended to be cleaned, a description of the method and suitable cleaning materials, including precautions needed to avoid corrosion, if applicable	–	N/T	
		h) if the rollator is intended to be disinfected, a description of the method and suitable materials, including any precautions needed to avoid corrosion, if applicable	–	N/T	

RESULT OF TESTS ACCORDING TO EN ISO 11199-2:2021

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
		i the overall dimensions (width, length and height) of the rollator, expressed in millimeters, and its mass, expressed in kilograms, when it is ready for use and, if applicable, when it is folded or dismantled	-	NT	
		j the mass expressed in kilograms, if the rollator can be dismantled or has any removable parts that has a mass that is heavier than 10 kilograms	-	NT	
		k if the rollator is supposed to be used in combination with other products, the manufacturer shall state which products, and how this can be done in a safe way	-	NT	
		l a list of accessories, detachable parts and materials that the manufacturer has determined as being intended for use with the rollator	-	NT	
		m whether and how the rollator can be folded or dismantled to assist in storage or transport	-	NT	
		n the location and the type of identification number/word on the rollator shall be given for the unique identification number of the assistive product	-	NT	
		o any adjustment or settings required before the rollator can be used and information on how adjustments or settings affect the rollator	-	NT	
		p information on adjustment possibilities and the competence required to carry out these adjustments	-	NT	
		q instructions on operation of all controls	-	NT	
		r instructions on dismantling and re-assembly of the rollator or any removable parts	-	NT	
		s 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	-	NT	
		t a warning if surface temperatures can increase / decrease when exposed to external sources of heat (e.g. sunlight, outdoor environment)	-	NT	
		u if the intended purpose of the rollator cannot be met without a hazard (e.g. holes, V-shaped opening), a warning and instructions on how to operate the assistive product safety	-	NT	
		v if the intended purpose of the rollator cannot be met without a hazard due to moving parts such as squeezing, a warning and instructions on how to operate the rollator safety	-	NT	
		w how to obtain information about the warranty	-	NT	
		x warning of the risk of falling from the rollator such as "Incorrect use can lead to hazardous situation - Do not use the products to transport a person".	-	NT	

TEST CONDITIONS

Ambient temperature	16°C	Required temperature 21°C ±5°C
Relative humidity of air:	55 %	Not required

Comments:

All tests performed with maximum height adjustment of rollator.

All tests performed in the least stable position of self-adjusting wheels.

Tests performed with handles positioned at their maximum (allowed) angle to the direction of motion (when adjustment is possible).

Sequence of tests: stability test, static loading test, fatigue test.

One rollator was tested.

During visual inspection before testing any visible defects that could have influence on test results were not stated.

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: Deformation – 24mm, elastic deformation – 22mm, permanent deformation – 2mm (0,21% - ≤1%).

CONCLUSIONS:

Testing object **conforms** with requirements of PN-EN ISO 11199-2 : 2021 in scope of mechanical testing ordered by client, excluding biocompatibility tests of material with human body according to PN-EN ISO 10993-1:2010 .

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