CENTRE FOR TESTING AND CERTIFICATION - MECH-TEST
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Date 10.07.2017

TEST REPORT NO. *CBC-137/2017*

Subject of testing:	*Assistive products for walking manipulated by one arm*	**Classification according to PN-EN ISO 9999:2011 :**	**12 03 03**
Type / Model:	*Walking cane*	**Item. no.:**	*315015*
Manufacturer:	*MOBILEX A/S, Grønlandsvej 5, DK-8660 Skanderborg*	**Number of specimens:**	*2*
Applicant:	*A-Net s.c., ul. Łaskowice 174, 93-469 Łódź*		
Kind of testing	*Mechanical testing for conformity with clause 4,6; methods – clause 5*	*PN-EN 11334-1:2007*	-

Test started: *22.06.2017*

Test finished: *10.07.2017*

Approved by:

DYREKTOR
mgr inż. Andrzej Tkaczyk

Special comments / enclosures:

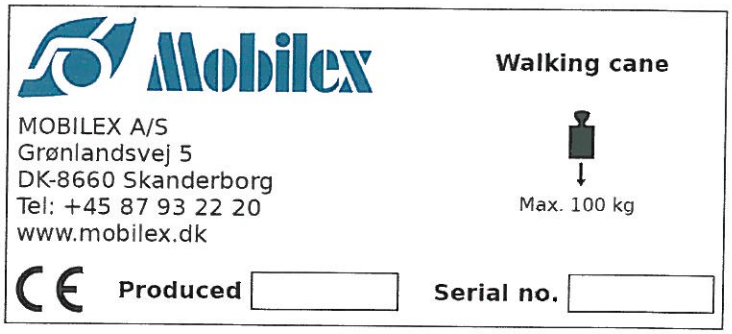
CHARACTERISTIC OF STICK

Name : *Walking cane*

Maximum permissible user mass: *100 kg*

Mass of stick: *360 g*

Description				Comments	PHOTO OF PRODUCT
Dimensions of stick:	Overall height of stick:	min.	*754 mm*	*10 positions of adjustment*	
		max.	*979 mm*		
	Leg section length (l):	min.	--		
		max.	--		
		number of fixing positions	--		
	Arm section length (a):	min.	--		
		max.			
		number of fixing positions	--		
	Handgrip length (h):		*125 mm*		
	Handgrip width:		*N/T*		
	Cuff internal width (y):		--		
	Cuff internal depth (x):		--		
	Cuff internal height (z):		--		
	Support angle (α):		--		
	Grip angle (β):		--		
	Tip diameter:		*39 mm*		
Material:	Leg section :		*Tubes – aluminum Ø 22 mm, Ø 19 mm*		
	Handgrip :		*Plastic*	*Black colour*	
	Arm section:		--		
	Cuff:		--		
	Tip:		*Rubber*	*Black colour*	
Reflective elements		back	*Not included*		
		front	*Not Included*		



RESULT OF TESTS ACCORDING TO PN-EN ISO 11334-1:2007

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters		Test result	Opinion	Comments
1	2	3		4	5	6
	Measur.	Dimensions of stick	Overall height of stick (min.)	*754 mm*	*N/R*	
	Measur.		Overall height of stick (max.)	*979 mm*	*N/R*	
	Measur.		Leg section length (l_{min})	--	*N/A*	
	Measur.		Leg section length ($l_{max.}$)	--	*N/A*	
	Measur.		Arm section length ($a_{min.}$)	--	*N/A*	
	Measur.		Arm section length ($a_{max.}$)			
	Measur.		Handgrip length (h)	*125 mm*	*N/R*	
	Measur.		Handgrip width (5)	--	*N/T*	*NOTE 2*
	Measur.		Cuff internal depth (x)	--	*N/A*	
	Measur.		Cuff internal with (y)	--	*N/A*	
	Measur.		Cuff internal height (z)	--	*N/A*	
	Measur.		Width of opening in cuff	--	*N/A*	
	Measur.		Support angle α	--	*N/A*	
	Measur.		Grip angle β	--	*N/A*	
	Measur.		Tip diameter	*39 mm*	*Pos.*	
	Measur.	Mass of stick		*360 g*	*N/R*	
4.1	**V/I**	Cuff	Securely fixing of cuff	--	*N/A*	
	V/I Measur.		Internal cuff dimensions	--	*N/A*	
	V/I Measur.		Position of internal cuff surface towards its suport line	--	*N/A*	
	Measur.		Relation of internal cuff depth to its internal width	--	*N/A*	
	Measur.		Cuff internal height (z)	--	*N/A*	
	5.4		Withdrawal test	--	*N/A*	
4.2	**V/I Measur.**	Handgrip	Securely fixing of handgrip	*Conf.*	*Pos.*	
	V/I		Handgrip resistance to sliding of hand when crutch is in use	*Conf.*	*Pos.*	
	Measur.		Handgrip width :	--	*N/T*	*Handgrip width required ≥ 25mm i ≤ 50mm NOTE 2*
	V/I		Ease of clearing	*Conf.*	*Pos.*	
4.3	**5.3 V/I**	Leg section and tip	Construction, tip characteristics	*Conf.*	*Pos.*	
	Measur.		Tip diameter	*39 mm Conf.*	*Pos.*	*Tip diameter required ≥ 35mm*
4.4	**V/I**	Adjusting devices	Fastness to loosening of height adjustment elements	*Conf.*	*Pos.*	
	V/I		Maximum extension of the height adjust-ment, marked on the adjusting members	*Conf.*	*Pos.*	
	V/I		Possibility of adjustment elements operation without use of tools	*Conf.*	*Pos.*	
4.5	**V/I**	Materials		--	*N/T*	*Manufacturer's declaration*

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters		Test result	Opinion	Comments
1	2	3		4	5	6
4.6	**5.5**	Mechanical durability	Stick element separation test (including handgrip)	*Conf.*	*Pos.*	*loading 500N NOTE 1:*
	5.6		Static loading test	*Conf.*	*Pos.*	*loading 1000N*
	5.7		Fatigue strength of stick	*1 000 000 cycles*	*Pos.*	*loading 550N*
	5.8		Low temperature falling test	*Conf.*	*Pos.*	
PN-EN 1041	**V/I**	Information supplied by the manufacturer		--	*N/T*	
6.2 6.3	**V/I**	Marking and labelling		*Conf.*	*Pos.*	

Test conditions:	Temperature of air	*21°C*	*Temperature required 21°C +/-2°C*
	Relative humidity of air:	*41%*	*N/R.*

Comments:

All tests were performed at maximum height of sticks

Two sticks of the same type and kind were tested: one was put to fatigue test and separation test, the other was put to static loading test and low temperature falling test.

Sequence of tests: measurements, separation test, static loading test, fatigue test, stability test, low temperature falling test.

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: The test related to the buton cell clamp and fitting the tube in the handgrip
NOTE 2: Manufacturer excluded from tests measuring the width of the handgrip

CONCLUSIONS:

*Test object **complies** with requirements of PN-EN ISO 11334-1:2007 - „Assistive products for walking manipulated by one arm. Elbow crutches. Requirements and test methods" – clauses 4, 6 (methods –clause. 5) with the exception of tests of biological compatibility of the material with the human body according to PN-EN ISO 10993-1:2010 and measuring the width of the handgrip*

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INFORMATION SUPPLIED BY THE MANUFACTURER

Name of product: *Walking cane*

Applicant: *A-Net s.c.*
93-469 Łódź, ul. Łaskowice 174

Requirement according to PN-EN ISO 11334-1:2007		**Included**
6.2	**Information of product**	
6.2a	Maximum permissible user mass	*N/T*
6.2b	Manufacturer`s name or trade name and address	*N/T*
6.2c	Manufacturer`s model identification name and/or number	*N/T*
6.2d	Month and year of manufacture	*N/T*
6.2e	Maximum extension of the height adjustment, marked on the adjusting members	*N/T*
Information in documentation, on tag or on product		
6.3a	Maximum arm section length a_{max}	*N/T*
6.3b	Minimum arm section length a_{min}	*N/T*
6.3c	Maximum leg section length l_{max}	*N/T*
6.3d	Minimum leg section length. l_{min}	*N/T*
6.3e	Support angle α	*N/T*
6.3f	Cleaning instructions, including a description of the method and suitable cleaning agents and any precautions needed to avoid corrosion and/or ageing of the materials used in construction of the elbow crutch	*N/T*
6.3g	Instructions for assembly, adjustment of all kinds, folding and unfolding, if applicable	*N/T*
6.3h	Warnings and advice about precautions relating to safe distances between moving and stationary parts, if applicable (see EN 12182:2012, Clauses 12 and 13, for guidance)	*N/T*
CE Marking		*N/T*

N/A- not applicable, N/T – not tested