# Danish Centre

for Assistive Technology



## **TESTING REPORT**

Assistive products for walking, manipulated by one arm - ISO classification 12.03

in accordance with relevant parts of the european standard EN 1985:1998

Testing No.

11.11A

This page is page 1 of a total of 2 pages

These records should under no circumstances be reproduced, except in their total, without permission in writing from the testing laboratory

These records are not an approval of the product tested, but is merely a record of testing results for a specific sample product

Product tested: RollerMate G2 Basic

Product received: 07.02.2011

Testing ordered by: RollerMate AB

Nobelvägen 2, Box 975

SE-80 267 Gävle

Sweden

Person to contact: Jesper Sibjörnsson

Product delivered by: The orderer

17.02.2011

DATE

Testing executive Per Abildgaard Nielsen

Dept. of Mobility, quality assurance and testing

Gregersensvej 3i DK – 2630 Taastrup

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## SUMMARY OF THE TESTING

The manufacturer identifies the sample product tested as follows:

name of product
 RollerMate G2 Basic

serial no. 1033001

A Comment

date of manufactory 2010-10-01

RM 1100501

The testing was carried out in accordance with the relevant parts of the european standard EN 1985:1998 "Walking aids – General requirements and test methods":

It was agreed upon with the manufacturer to test the mechanical durability of the product as described in detail in the "Testing Records" attached to this report.

The RollerMate was found to comply with the appropriate sections of the european standard EN 1985:1998 "Walking aids – General requirements and test methods":

The detailed testing results are recorded in the "Testing Records" attached to this report.

The testing took place in the period from 07.02.2011 to 16.02.2011.

Where applicable, the standard EN ISO 12182 has been used for the quantification of requirements not quantified in the EN 1985:1998 or other standards referred to.

The testing was carried out under normal indoor conditions.

The testing laboratory upon request can inform tolerances of measurements.

## **Danish Centre** for Assistive Technology



## **TESTING RECORDS**

Assistive products for walking, manipulated by one arm - ISO classification 12.03 in accordance with relevant parts of the european standard EN 1985:1998

Testing No.

11.11A

This page is page 1 of a total of 6 pages

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These records are not an approval of the product tested, but is merely a record of testing results for a specific sample product

The testing records are organised in conformity with the european standard EN 1985:1998, i.e. section numbers in the records are similar to the corresponding requirements in the standard.

Not fulfilled requirements recorded are indicated by the use of underlined text.

17.02.2011 DATE

Testing executive Per Abildgaard Nielsen

Dept. of Mobility, quality assurance and testing

Gregersensvei 3i DK - 2630 Taastrup Tel. +45 43 99 33 22

e-mail: pan@hmi.dk





#### DESCRIPTION OF THE PRODUCT

The manufacturer identifies the sample product tested as follows:

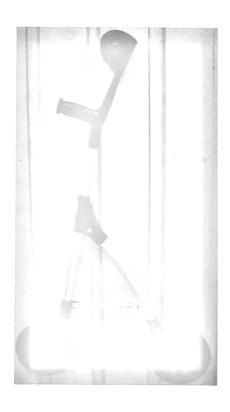
name of product
 RollerMate G2 Basic

serial no. 1033001

date of manufactory 2010-10-01

• RM 1100501

The RollerMate is a new type of walking aid. It is a hybrid of a rollator and an elbow crutch. The SWL is 100 kg. It is made of aluminium and plastics. It is both for indoor and outdoor use.



### **TESTING RESULTS**

#### 6.3 Manoeuvrability

The front wheel diameter shall be no less than 75

The front wheel diameter of walking aids manufactured for outdoor use shall be no less than 180 mm.

200 mm - OK

200 mm - OK

#### Handgrip

The handgrip width shall be no less than 20 mm and not more than 50 mm.

The requirement is not applicable to anatomic handgrips.

The hand grip shall be securely fixed to the handle of the walking aid.

as judged by the inspector.

The handgrip shall be replaceable or easy to clean.

30 x 44 mm - OK

Ok

The handgrip is easy to clean

#### B.2.2 | Light-reflecting material

Light-reflecting material should be mounted as close as possible to the vertical, as close as possible to right angels to the line of travel and as low as possible on a walking aid, not higher than 800 mm above the walking surface.

OK

B.5.1 Mechanical durability	
When tested in accordance with the static loading test, no part of the walking aid shall crack or break and the permanent set of the rollator height shall not exceed 1 %.  When tested in accordance with the fatigue test, no part of the walking aid shall crack or break.	ок

Loading and deformations are made as indicated in the table below: SWL = 100 kg

LOADING	deformation before load	deformation after load
100 % of SWL (min. 420 N) for 5 second, applied over a minimum period of 2 seconds.	0 mm	0 mm

Fatigue test

A cyclic (max. 1 Hz.) force of 550 N for 100.000 times, with wheels travelling with min. 0,4m/loading cycle.  If failure occurs, record this and the number of cycles.	F(1) = 0.30 Hz F(2) = 0.30 Hz	V(1)/F(1) = 1.1 m
	V(1) = 0.33 m/s V(2) = 0.33 m/s	V(2)/F(2) = 1.1 m

Note: X(1) means initial values, X(2) means values at the end of testing

It was agreed upon with the manufacturer to test the product as described above. The Force 550 N is taken from the standard ISO 11334-1:2007, Elbow crutches. The 100.000 loads is taken from the standard ISO 11199-2:2005, Rollators. The 100.000 is half of the 200.000 cycles described in the rollator standard. The load on a RollerMate is less than a on a rollator and it has fewer hard impacts, because it is lifted over obstacles

7.2	Adjusting devices  Each of the height adjustment devices shall be clearly marked with its maximum allowable elongation.	OK
7.3	Folding mechanism  When the walking aid is in the working position, the folding mechanism shall stay securely locked, as judged by the inspector.	OK

### 5.3 Materials and finish The walking aid materials shall not cause discolouring of skin or clothing when the rollator is in OK normal use. All parts of the walking aid shall be free from burrs, sharp edges or projections that could cause damage to clothing or discomfort to the user. OK

Final inspection	
When all tests have been completed, inspect the walking aid and all its mechanisms and functions for satisfactory operation as specified by the manufacturer.	OK

8.0 INFORMATION SUPPLIED BY THE MANUFACTURER			
O.U IINF	Infor	mation supplied by the  ufacturer	
	Each w marked	alking aid shall be clearly and indelibly with the following:	
	,	maximum user mass; maximum safe working load (SWL) to be	100 kg - OK No accessories delivered
	c.)	marked on accessories; maximum allowed angle between the longitudinal centreline of the handle and the direction of motion, if the handles are sideways adjustable;	Not applicable
	d.)	manufacturer's name or trade name and address;	Rollermate AB- OK
	,	manufacturer's model identification name and/or number;	RollerMate G2 Basic - OK
	f.)	month and year of manufacture;	2010-10-01 - OK
	g.)	maximum extension of the height adjustment, marked on the adjusting members;	ОК
	h.)	maximum width of the rollator;	Not applicable
	i.)	whether or not the walking aid is designed for indoor or outdoor use, in accordance with 6.3	Indoor and outdoor use - OK

8.0 INFORMATION SUPPLIED BY THE MANUFACTURER			
0.0	-	mentation	
	The following information shall be contained in the instruction for use and/or assembly, or clearly and indelibly marked on the product:		
			76 cm - OK
	a.)	maximum walking aid height;	90 cm - OK
	b.)	minimum walking aid height;	
	c.)	maintenance and 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 walking aid;	OK
	d.)	instructions for assembly, adjustment of all kinds, folding and unfolding;	OK
	e.)	warnings and advice about precautions relating to safe distances between moving and stationary parts (see EN 12182:1999, Clauses 12 and 13, for guidance);	OK
	f.)	maximum safe working load (SWL) for load carrying accessories such as basket, tray, shopping bag, etc.;	SWL for shopping bag missing