



**NSAI**  
Standards

Irish Standard  
I.S. EN 12183:2014

# Manual wheelchairs - Requirements and test methods

**I.S. EN 12183:2014**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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- ☐ PQ/UQ
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- ☐ UAP
- ☐ TC Approval
- ☐ 2<sup>nd</sup> TC Approval
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- ☐ Parallel Publication

It has been brought to our attention that this document, issued on 2014-03-26, requires modification.

Please find enclosed the updated English version.

We apologise for any inconvenience this may cause.

Clause 14, Table 2, 2nd column, 5<sup>th</sup> row ("Arm support upward"), replace " $F = \frac{S(m_d + m_w)g}{3 \times \cos 10^\circ}$ " with " $F = \frac{S(m_d + m_w)g}{2 \times \cos 10^\circ}$ " (in which "3" is corrected and replaced with "2").

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EUROPEAN STANDARD

**EN 12183**

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EUROPÄISCHE NORM

March 2014

ICS 11.180.10

Supersedes EN 12183:2009

English Version

## Manual wheelchairs - Requirements and test methods

Fauteuils roulants à propulsion manuelle - Exigences et  
méthodes d'essai

Muskelkraftbetriebene Rollstühle - Anforderungen und  
Prüfverfahren

This European Standard was approved by CEN on 27 December 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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## **Foreword**

This document (EN 12183:2014) has been prepared by Technical Committee CEN/TC 293 “Assistive products for persons with disability”, the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2014 and conflicting national standards shall be withdrawn at the latest by March 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12183:2009, which is to be withdrawn (dow) three years after the date of availability of this edition. See CEN/TC 293 resolution 492.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 93/42/EEC of 14 June 1993 concerning medical devices.

For relationship with the applicable EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Informative Annex E provides details of significant technical changes between this European Standard and the previous editions of 1999, 2006 and 2009.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 12183:2014 (E)**

## **Introduction**

This is the fourth edition of this European Standard. The first edition was published in 1999, the second in 2006 (withdrawn in 2007) and the third in 2009.

Where this European Standard does not apply to particular wheelchairs, contracting parties should consider whether appropriate parts of this European Standard can be used. Manufacturers might also wish to consider whether appropriate parts of this European Standard can be used to assess the performance of their products against the Essential Requirements of the Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

This European Standard contains requirements for ergonomic design related to the ease of wheelchair operation.

## 1 Scope

This European Standard specifies requirements and test methods for manual wheelchairs intended to carry one person of mass not greater than 250 kg.

It also specifies requirements and test methods for manual wheelchairs with electrically powered ancillary equipment.

This European Standard does not apply in total to:

- wheelchairs intended for special purposes, such as sports, showering or toileting,
- manual wheelchairs with handrim-activated power-assisted propulsion,
- custom-made wheelchairs,
- stand-up wheelchairs, and
- manual wheelchairs with add-on power kits used for propulsion.

NOTE Requirements for electrically powered wheelchairs are specified in EN 12184.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1021-2:2006, *Furniture — Assessment of the ignitability of upholstered furniture — Part 2: Ignition source match flame equivalent*

EN 12182:2012, *Assistive products for persons with disability — General requirements and test methods*

EN 12184, *Electrically powered wheelchairs, scooters and their chargers — Requirements and test methods*

EN ISO 14971:2012, *Medical devices — Application of risk management to medical devices (ISO 14971:2007, Corrected version 2007-10-01)*

ISO 7176-1:1999, *Wheelchairs — Part 1: Determination of static stability*

ISO 7176-3:2012, *Wheelchairs — Part 3: Determination of effectiveness of brakes*

ISO 7176-8:1998, *Wheelchairs — Part 8: Requirements and test methods for static, impact and fatigue strengths*

ISO 7176-11:2012, *Wheelchairs — Part 11: Test dummies*

ISO 7176-13:1989, *Wheelchairs — Part 13: Determination of coefficient of friction of test surfaces*

ISO 7176-15:1996, *Wheelchairs — Part 15: Requirements for information disclosure, documentation and labelling*

ISO 7176-19:2008, *Wheelchairs — Part 19: Wheeled mobility devices for use as seats in motor vehicles*

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