

The Standards Institution of Israel

**Israeli Standard – SI 1279 part 1**  
Av, 5762 – August 2002

**Wheelchairs: Hand propelled chairs**

This Standard replaces Israeli Standard  
SI 1279 part 1 of March 1999

This Standard, excluding its amendment and additions,  
is identical to European Standard EN 12183 -99

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**Descriptors:** wheelchairs, patient transport equipment, manually operated devices, aids for disabled, medical equipment.

This Standard was prepared by the following panel of expert committee members:  
Shlomo Gross, Shula Chen, Yitzhak Markman, Israel Sabish, Zvika Smolansky (chair),  
Nadav Shefer.

This Standard was approved by the following panel of technical committee 1414  
members – transport methods for disabled and patients:

Federation of Israeli Chambers of Commerce	–	Zeev Toran
Government Hospitals	–	Shulamit Chen
Technion, Biomedical Engineering Faculty (assistant chair)	–	Zvika Smolansky
The Israel Consumer Council	–	Pessach Nadir
The Manufacturers Association of Israel	–	Yossef Yitzikowitz
Hevrat Haovdim	–	Arie Bakar
Magen David Adom	–	Adi Bareket
The Standards Institution of Israel – Industry Division	–	Israel Sabish
Defence Ministry	–	Ezra Hovav
Health Ministry	–	Nadav Shefer
IDF – Medical Corps	–	Guy Laskovsky

Eti Golan coordinated the preparation work for the Standard.

The Standard or parts thereof should be checked to ensure they are official.  
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from publication of notification regarding its registration, except if the notification  
determines a later effective date .  
NB: A document published in the records as an amendment sheet can be a separate  
amendment sheet or an amendment integrated into the Standard .

## **Introduction to the Israeli Standard**

This Israeli Standard is European Standard EN 12183 of 1999, which was approved in English as part of the Israeli Standard with changes and additions.

The following are presented in Hebrew:

- The **Applications of the Standard** paragraph with changes and additions.
- Details of the changes and additions to parts of the European Standard.

The European Standard is presented in its original form in English.

For the reader's convenience, **Appendix A – the Hebrew translation of the standard** is presented.

This Standard is part of a series of standards dealing with wheelchairs . The series parts are:

SI 1279 part 1 – Wheelchairs: Hand propelled wheelchairs.

SI 1279 part 2 – Wheelchairs: Electrically powered wheelchairs, electric scooters and their charges.

### **1. Application of the Standard (paragraph 1 of the European Standard with changes and additions).**

This Standard details the requirements and test methods for hand propelled wheelchairs designed for use by one person whose mass does not exceed 114 kg (250 pounds).

The wheelchairs which this Standard applies to include the types of wheelchairs described in standard EN ISO 9999: 1998 as detailed below:

122103 – Manual attendant-controlled wheelchairs .

122106 – Bimanual rear-wheel-driven wheelchairs .

122109 – Bimanual front-wheel-driven wheelchairs .

122112 – Bimanual lever-driven wheelchairs .

122115 – Single side driven non-powered wheelchairs –  
Wheelchairs driven by one arm or one arm and one leg .

122118 – Foot-driven wheelchairs .

This Standard also details the requirements and test methods for hand propelled wheelchairs with electrical accessories.

This Standard does not apply to the following:

- Wheelchairs designed for special purposes such as sports, showers and toilets;
- Wheelchairs especially designed or adjusted to the needs of people with specific disabilities;
- Standing wheelchairs.
- Hand propelled wheelchairs with a driving kit added.

Remark:

Application of this Standard is limited to wheelchairs for users weighing up to 114 kg (250 pounds), because testing the conditions for use by users with larger mass requires additional research.

## Details of the changes and additions to paragraphs of the European Standard

### 2. Normative references

- See the **Normative references** paragraph of the European Standard.
- The following Israeli Standards replace some of the European standards detailed in the Normative references:

The standard mentioned in the European Standard	The Israel Standard replacing it
EN 12184-1999	SI 1279 part 2 – wheelchairs: electrically powered wheelchairs, electric scooters and their charges.
ISO 7176-1	SI 1799 part 1 – wheelchairs: determination of static stability .
ISO 7176-3	SI 1799 part 3 – wheelchairs: determination of effectiveness of brakes .
ISO 7176-8 – 1998	SI 1799 part 8 – wheelchairs: requirements and test methods for static, impact and fatigue strengths .
ISO 7176-11	SI 1799 part 11 – wheelchairs: test dummies .
ISO 7176-13	SI 1799 part 13 – wheelchairs: determination of coefficient of friction of test surfaces .
ISO 7176-15	SI 1799 part 15 – wheelchairs: requirements for information disclosure, documentation and labeling.
ISO 7176-16	SI 1799 part 16 – wheelchairs: resistance to ignition of upholstered parts – requirements and test methods .

- The following Israeli Standard shall be added to this paragraph:  
SI 891 - Wheeled child conveyances.

### 6. Design requirements.

#### 6.1.2 Test method for footrests .

Table 1 – Force to be applied to footplates.

The following changes apply to the table:

In the last line, the value of 100 kg does not apply and is replaced by 114 kg.

### 7. Performance requirements.

The following is added to the beginning of this paragraph:

In the tests detailed below which require a test dummy, wheelchairs for users weighing up to 114 kg must be tested with test dummies whose mass is 100 kg.

### **7.1 Requirements for wheelchair static, impact and fatigue strengths.**

The following addition applies to this paragraph:

Apart from paragraph 10.5 – Drop test.

- Paragraph 7.8 as detailed below shall be added after paragraph 7.7:

### **7.8 Resistance to obstacles.**

A test dummy is prepared as detailed in Israeli Standard SI 1799 part 11, with the following changes:

In dummies with a mass of 100 kg, 75 kg and 50 kg, the bottom part of the leg is replaced with two parts whose shape allows contact with the footrests, e.g.: iron blocks measuring 75x150x40mm, each weighing  $(3.5\pm 0.5)$  kg with their centre of gravity at a height of  $(20\pm 2)$  mm above the footplate.

In wheelchairs for users weighing up to 114 kg, test dummies with a mass of 100 kg are used.

If the wheelchair has pneumatic wheels, they must be pumped to the maximal recommended pressure.

The wheelchairs must be tested on a device as described in Israeli Standard SI 891, in the paragraph dealing with testing the operating force, with the following change:

The chair must be rotated 500 times.

**At the end of the test, there should be no visible cracks, breaks, tears or distortion and the wheelchair must function properly when moving and folding.**