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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18029.11-2008

**Wheelchairs -- Part 11: Test dummies
(English Translation)**

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Foreword

GB/T 18029 "wheelchair" consists of the following components.

- Part 1. Determination of static stability Determination of dynamic stability of electric wheelchairs. --- Part 2
- Part 3. Determination of brakes Determination of energy consumption. --- Part 4
- Part 5. Determination of dimensions, mass and turning space Determination of electric wheelchairs maximum speed, acceleration and deceleration. --- Part 6
- Part 7. seat and wheel size measurement method
- Part 8. static strength, impact strength and fatigue strength requirements and test methods
- Part 9. climatic test methods of electric wheelchairs Determination of electric wheelchair obstacle Ability. --- Part 10
- Part 11. Test dummies
- Part 13. Determination of the coefficient of friction of the test surface
- Part 14. electric wheelchairs and power control systems - Requirements and test methods
- Part 15. information dissemination, and labeling requirements documents issued
- Part 16. Block (by) pad flame retardancy requirements and test methods
- Part 17. electric wheelchair controller interface
- Part 18. The downstairs unit
- Part 19. Wheeled mobile device for a motor vehicle
- Part 20. Determination of standing wheelchairs Performance

- Part 21. Electromagnetic compatibility requirements and test methods
- Part 22. Adjusting program
- Part 23. Requirements and test methods for stair climbing device caregiver operation
- Part 24. Requirements and test methods occupant operated stair climbing device
- Part 25. Battery and charger requirements and test methods
- Part 26. Terminology this part identical with ISO 7176-11:1992 "Wheelchairs - Part 11. Test dummies" (in English).

This section of Appendix A normative appendix.

This section proposed by the People's Republic of China Ministry of Civil Affairs.

This part of the National Rehabilitation and special equipment Standardization Technical Committee on Persons with Disabilities (SAC/TC148) centralized.

This section drafted by. National Rehabilitation Aids Research Center, Shanghai Hubang Medical Devices Co., Ltd. Foshan Dongfang Medical Equipment Factory have Limited, Shanghai wheelchair depot.

1 Scope

GB/T 18029 provisions of this part of the public in other parts of 18029 GB/T require the use of saying that the quality of 25kg, 50kg, 75kg and 100kg test dummy structures.

Test dummy design principles for placing the wheelchair in the corresponding test car, in the test state of its center of gravity position and the same quality Substantially the same man sitting in a wheelchair.

2 Normative references

The following documents contain provisions which, through reference GB/T 18029 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, we are encouraged to reach agreement under this section all parties that proposed to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 6342 Determination of foam rubber with linear dimensions (GB/T 6342-1996, idt ISO 1923. 1981) GB/T 6669 Flexible cellular polymeric materials - Determination of compression set (GB/T 6669-2008, ISO 1856:2000, IDT) GB/T 12825 Flexible cellular polymeric material of the concave hardness measurement method (GB/T 12825-2003, ISO 2439. 1980, IDT) ISO 845. 1988 Cellular plastics and rubbers apparent (bulk) density measurement

3 Specifications

Dummy four quality grade is 100kg, 75kg, 50kg and 25kg. The main structure of the dummy 1 to 10 shown in FIG.

Dummy shall be composed of the following materials and components.

- (15 ± 1) mm plywood;
- $(30 + 10-5)$ mm x $(30-5)$ Mm x $(2 + 1.2-0.5)$ Mm aluminum angle;
- $(30 + 10-5)$ mm x $(2 + 1.2-0.5)$ Mm of aluminum;
- (30 ± 10) mm x (20 ± 1) mm plastic or nylon pieces;
- (30 ± 10) mm x (12 ± 1) mm plastic or nylon pieces;
- (240 ± 5) mm x (80 ± 3) mm x $(40 \text{ } 0-4)$ mm steel block (mass of approximately 6kg);
- (240 ± 5) mm x (80 ± 3) mm x $(20 \text{ } 0-2)$ mm steel block (mass of approximately 3kg);
- (15 ± 3) mm high-density closed-cell foam.
- density (75 ± 15) kg/m³ (ISO 845 according to the request);
- Hardness (325 ± 60) N (according to GB/T 12825 requirements of);
- permanent deformation of less than 5% (according to GB/T 6669 and GB/T 6342 requirements);
- (50 ± 3) mm rigid open-cell foam material.

Dimensional tolerances main configuration shown in Fig.

If you can keep the overall dimensions, mass distribution and characteristics, but also consider the use of other materials and structures to create dummy.

4 Dummy positioning in a wheelchair car

In the test, the wheelchair size matching dummy should be firmly placed in a wheelchair on board. Dummy as far as possible away from the seat back and equidistant from both sides of the seat. In use, the rear edge of the edge of the footrest coincidence after dummy "legs" of the placement shall be so.

GB/T 18029.11-2008/ISO 7176-11:1992