

Australian/New Zealand Standard™

Wheelchairs

Part 9: Climatic tests for electric wheelchairs (ISO 7176-9:2001, MOD)



AS/NZS 3696.9:2008

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-067, Mobility Appliances for People with Disabilities. It was approved on behalf of the Council of Standards Australia on 26 February 2008 and on behalf of the Council of Standards New Zealand on 17 March 2008. This Standard was published on 30 May 2008.

The following are represented on Committee ME-067:

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-067, Mobility Appliances for People with Disabilities, to supersede AS 3696.9—1990, *Wheelchairs, Part 9: Climatic tests for electric wheelchairs*.

This Standard is an adoption with national modifications and has been reproduced from ISO 7176-9:2001, *Wheelchairs—Part 9: Climatic tests for electric wheelchairs*, and has been varied as indicated to take account of Australian/New Zealand conditions.

The objective of this Standard is to provide a suitable test for the determination of the effects of various climatic conditions on electrically powered wheelchairs.

The objective of this revision is to adopt the latest edition of the ISO Standard, which contains substantive changes to the presentation of the test method.

For the purpose of this Standard, the ISO test is supplemented as set out in Appendix ZZ.

As this Standard is reproduced from an international standard, the following applies:

- (a) Its number appears on the cover and title page while the international standard number appears only on the cover.
- (b) In the source text ‘this part of ISO 7176’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian/New Zealand Standards, as follows:

| <i>Reference to International Standard</i> | | <i>Australian/New Zealand Standard</i> | |
|--|--|--|--|
| ISO | | AS/NZS | |
| 6440 | Wheelchairs—Nomenclature, terms and definitions | — | |
| 7176 | Wheelchairs | 3696 | Wheelchairs |
| 7176-11 | Part 11: Test dummies | 3696.11 | Part 11: Test dummies |
| 7176-15 | Part 15: Requirements for information disclosure documentation and labelling | — | |
| 7176-22 | Part 22: Set-up procedures | 3696.22 | Part 22: Set-up procedures |
| IEC | | AS | |
| 60529 | Degrees of protection provided by enclosures (IP Code) | 60529 | Degrees of protection provided by enclosures (IP Code) |

INTRODUCTION

Wheelchairs may be used or stored in adverse environmental conditions which may severely affect their functioning, sometimes to the extent of being dangerous.

These tests have been developed to determine if and to what extent wheelchairs are vulnerable to environmental conditions.

Operation is tested in rain, hot and cold conditions which simulate use in some of the wider climatic variations experienced around the world.

AUSTRALIAN/NEW ZEALAND STANDARD

Wheelchairs

Part 9:

Climatic tests for electric wheelchairs (ISO 7176-9:2001, MOD)

1 Scope

This part of ISO 7176 specifies requirements and test methods to determine the effects of rain and condensation and the effects of changes of temperature on the basic functioning of electrically powered wheelchairs, including scooters, intended to carry one person, with a maximum speed not exceeding 15 km/h.

This part of ISO 7176 does not include requirements for resistance to corrosion.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 7176. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 7176 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 6440, *Wheelchairs — Nomenclature, terms and definitions*

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

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

ISO 7176-22, *Wheelchairs — Part 22: Set-up procedures*

IEC 60529 (2001), *Degrees of protection provided by enclosures (IP Code)*

3 Terms and definitions

For the purposes of this part of ISO 7176, the terms and definitions given in ISO 6440 and the following apply.

3.1**control device**

means by which the user directs the wheelchair to move at the desired speed and/or in the direction of travel

3.2**standard ambient conditions**

environmental conditions of (20 ± 5) °C and relative humidity of (60 ± 20) %