

Australian/New Zealand Standard™

Bicycle helmets



AS/NZS 2063:2008

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-014, Pedal Cycle Helmets. It was approved on behalf of the Council of Standards Australia on 22 September 2008 and on behalf of the Council of Standards New Zealand on 7 November 2008.

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The following are represented on Committee CS-014:

Association of Accredited Certification Bodies
Australian Chamber of Commerce and Industry
Australian Competition and Consumer Commission
Australian Cycling Federation
Australian Industries Group
Australian Retailers Association
Bicycle Federation of Australia
Bicycle Industries Australia
Department of Fair Trading NSW Consumer Protection Agency
Department of Fair Trading, Tourism and Vine Industries, Qld
New Zealand helmet testing interests
Retail Cycle Traders Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-014, Pedal Cycle Helmets to supersede AS/NZS 2063:1996, *Pedal cycle helmets*.

This Standard incorporates Amendment No. 1 (December 2009). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

Changes in this edition of the Standard from the 1996 edition include:

- (a) The adoption of the projection requirements from AS/NZS 3838:1998, *Helmets for horse riding and horse-related activities* (see Clause 5.3).
- (b) The specification of the use of ISO headforms through reference to AS/NZS 2512.1 (see Clause 6.5).
- (c) Reduction of the impact energy attenuation requirements from an allowed maximum of 300g to 250g (see Clause 7.4).
- (d) Replacing the retention system test with a dynamic strength test through reference to AS/NZS 2512.5.2 (see Clause 7.6).
- (e) Peak deflection test introduced.

NOTE: The committee is investigating the possibility of including the following specifications:

- (a) Dynamic stability test to replace the static stability test in Clause 7.3.
- (b) Lowering the loading measured by the force transducer to 350 N in 'load distribution' specification (Clause 7.5).

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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FOREWORD

Helmets which comply with this Standard are considered suitable for cycling activities where the wearer may be thrown or fall from a height, particularly while mobile. They are not, however, to be used by motor cyclists on public roads or in other public places where the various State and Territory Traffic Regulations require the use of helmets complying with AS/NZS 1698:2006, *Protective helmets for vehicle users*, nor are they to be used for high-speed sports such as motor cycle racing and car racing.

The protection given by a helmet depends on the circumstances of the impact and the wearing of a helmet cannot always prevent death or injury. A proportion of the energy of an impact is absorbed by the helmet, thereby reducing the force of the blow sustained by the head. The structure of the helmet may be damaged in absorbing this energy and any helmet that sustains a severe blow should be replaced even if damage is not apparent.

To achieve the performance of which it is capable and to ensure stability on the head, a helmet should be as closely fitting as possible consistent with comfort, and it must be securely fastened, with the retaining strap under tension at all times.

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1 SCOPE

This Standard specifies construction requirements and the basic performance requirements for impact energy attenuation, helmet stability, load distribution, strength and effectiveness of the retention system and its attachment points and peripheral vision clearance for lightweight protective helmets intended to mitigate the adverse effects of a blow to the head. Marking requirements are also specified.

Helmets that meet the specification of this Standard may not adequately control hazards and injuries associated with all cycling activities, e.g. BMX and mountain bicycles.

NOTE: A helmet complying with this Standard may incorporate special features designed to suit its use in specific activities.

2 OBJECTIVE

The objective of this Standard is to provide helmet wearers with lightweight helmets that provide protection against, and reduce the severity of, head injury from hazards associated with cycling.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1609 Eye protectors for motor cyclists and racing car drivers
- 2342 Development, testing and implementation of information and safety symbols and symbolic signs

AS/NZS

- 2512 Methods of testing protective helmets
- 2512.1 Part 1: Definitions and headforms
- 2512.2 Method 2: General requirements for the conditioning and preparation of test specimens and laboratory conditions
- 2512.3.1 Method 3.1: Determination of impact energy attenuation—Helmet drop test
- 2512.5.2 Method 5.2: Determination of strength of retention system—Dynamic strength
- 2512.6 Method 6: Measurement of horizontal peripheral vision clearance
- 2512.7.1 Method 7.1: Determination of stability of protective helmets—Static stability
- 2512.8 Method 8: Measurement of peak deflection
- 2512.9 Method 9: Determination of load distribution

4 DEFINITIONS

For the purpose of this Standard, the definitions given in AS/NZS 2512.1 and the following apply:

4.1 Accessory

Items not permanently attached to the helmet.