

Australian/New Zealand Standard™

Occupational protective footwear

**Part 2: Test methods
(ISO 20344:2004, MOD)**



AS/NZS 2210.2:2009

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-003, Occupational Protective Footwear. It was approved on behalf of the Council of Standards Australia on 16 June 2009 and on behalf of the Council of Standards New Zealand on 26 June 2009.

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The following are represented on Committee SF-003:

Association of Accredited Certification Bodies
Australasian Fire Authorities Council
Australian Chamber of Commerce and Industry
Australian Industry Group
Department of Defence (Australia)
Footwear Manufacturers Association of Australia
New Zealand Footwear Industry Association
New Zealand Leather & Shoe Research Association
Plastics and Chemicals Industries Association
Testing Interests (Australia)

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Australian/New Zealand Standard™

Occupational protective footwear

Part 2: Test methods (ISO 20344:2004, MOD)

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2210.6:2001.
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-003, Occupational Protective Footwear to supersede AS/NZS 2210.2:2000, *Occupational protective footwear, Part 2: Requirements and test methods* (in part) and AS/NZS 2210.2:1994, *Occupational protective footwear, Part 2: Specification*, as well as AS/NZS 2210.6:2001, *Occupational protective footwear, Part 6: Additional requirements and test methods*.

This Standard is an adoption with national modifications and has been reproduced from ISO 20344:2004, ISO 20344:2004/Cor.1:2005 and ISO 20344:2004/Amd.1:2007, *Personal protective equipment—Test methods for footwear* and has been varied as indicated in Appendix ZZ to take account of Australian/New Zealand conditions. The Corrigendum and Amendment have been added after the source text.

The objective of this Standard is to provide manufacturers and users with test methods for footwear intended for use in workplace applications.

The objective of this revision is to adopt the current edition of ISO 20344. In this edition, the Committee considered that methods for testing toecaps alone be excluded from this Standard, in line with ISO 20344:2004 requirements.

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 European Standard’ 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 or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian/New Zealand Standard</i>
EN	AS/NZS
388 Protective gloves against mechanical risks	2161 Occupational protective gloves 2161.3 Part 3: Protection against mechanical risks
EN/ISO	
20345 Personal protective equipment— Safety footwear (ISO 20345:2004)	2210 Occupational protective footwear 2210.3 Part 3: Specification for safety footwear
20346 Personal protective equipment— Protective footwear (ISO 20346:2004)	2210.4 Part 4: Specification for protective footwear
20347 Personal protective equipment— Occupational footwear (ISO 20347:2004)	2210.5 Part 5: Specification for occupational footwear

NOTE: Any international Standards not listed have not been adopted as Australian or Australian/New Zealand Standards.

Guidance for the selection, care and use of protective footwear is not covered by this Standard but is provided in AS/NZS 2210.1, *Occupational protective footwear, Part 1: Guide to selection, care and use*.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex or appendix to which they apply. A normative annex or appendix is an integral part of a standard, whereas an informative annex or appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
1. Scope	1
2. Normative references	1
3. Terms and definitions	2
4. Sampling and conditioning	2
5. Test methods for whole footwear	4
5.1 Specific ergonomic features.....	4
5.2 Determination of upper/outsole and sole interlayer bond strength	5
5.3 Determination of internal toecap length.....	10
5.4 Determination of impact resistance.....	11
5.5 Determination of compression resistance.....	15
5.6 Determination of corrosion resistance.....	16
5.7 Determination of leakproofness	17
5.8 Determination of the dimensional conformity of inserts and the penetration resistance of the sole	17
5.9 Determination of the flex resistance of penetration-resistant inserts	20
5.10 Determination of electrical resistance.....	20
5.11 Determination of the electrical insulation	21
5.12 Determination of insulation against heat.....	21
5.13 Determination of insulation against cold.....	22
5.14 Determination of energy absorption of seat region.....	24
5.15 Determination of resistance to water for whole footwear	26
5.16 Determination of impact resistance of metatarsal protective device	33
5.17 Determination of the shock absorption capacity of ankle protection materials incorporated into the upper	37
6. Test methods for upper, lining and tongue	41
6.1 Determination of thickness of upper.....	41
6.2 Measurement of the height of the upper.....	41
6.3 Determination of tear strength of upper, lining and/or tongue.....	41
6.4 Determination of the tensile properties of upper material	42
6.5 Determination of upper flexing resistance.....	42
6.6 Determination of water vapour permeability	42
6.7 Determination of water vapour absorption	47
6.8 Determination of water vapour coefficient.....	49
6.9 Determination of pH value	49
6.10 Determination of resistance to hydrolysis of upper	49
6.11 Determination of chromium VI content	49
6.12 Determination of abrasion resistance of lining and insock	55
6.13 Determination of water penetration and water absorption for upper.....	56
6.14 Determination of resistance of upper to cutting	58

7. Test methods for insole and insock	58
7.1 Determination of insole thickness	58
7.2 Determination of water absorption and desorption of insole and insock	58
7.3 Determination of abrasion resistance of insole	61
8 Test methods for outsole	63
8.1 Determination of outsole thickness	63
8.2 Determination of tear strength of outsole	63
8.3 Determination of outsole abrasion resistance	64
8.4 Determination of flexing resistance of outsole	64
8.5 Determination of resistance to hydrolysis of outsole.....	69
8.6 Determination of resistance to fuel oil	69
8.7 Determination of resistance to hot contact	69
Bibliography.....	73

AUSTRALIAN/NEW ZEALAND STANDARD

Occupational protective footwear

Part 2:

Test methods (ISO 20344:2004, MOD)

1. Scope

This Standard specifies methods for testing footwear designed as personal protective equipment.

2. Normative references

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

EN 388:1994, Protective gloves against mechanical risks

EN 12568:1998, Foot and leg protectors — Requirements and test methods for toecaps and metal penetration resistant inserts

EN 50321:1999, Electrically insulating footwear for working on low voltage installations

EN ISO 868, Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868:2003)

EN ISO 3696, Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)

EN ISO 3376:2002, Leather — Physical and mechanical tests - Determination of tensile strength and percentage extension (ISO 3376:2002)

EN ISO 3377-2, Leather - Physical and mechanical tests - Determination of tear load (ISO 3377-2: 2002)

EN ISO 4044, Leather — Preparation of chemical test samples (ISO 4044:1977)

EN ISO 4045, Leather — determination of pH (ISO 4045:1977)

EN ISO 4674-1:2003, Rubber- or plastics-coated fabrics - Determination of tear resistance - Part 1: Constant rate of tear methods (ISO 4674-1:2003)

EN ISO 17249:2004, Safety footwear with resistance to chain saw cutting (ISO 17249: 2004)

EN ISO 20345, Personal protective equipment - Safety footwear (ISO 20345:2004)

EN ISO 20346, Personal protective equipment - Protective footwear (ISO 20346:2004)

EN ISO 20347, Personal protective equipment - Occupational footwear (ISO 20347:2004)

ISO 34-1:1994, Rubber, vulcanised or thermoplastic — Determination of tear strength — Part 1 : Trouser, angle and crescent test pieces

ISO 1817:1999, Rubber, vulcanised — Determination of the effect of liquids

ISO 2023:1994, Rubber footwear - Lined industrial vulcanized rubber boots - Specification

ISO 3290, Rolling bearings — Balls — Dimensions and tolerances

ISO 4643:1992, Moulded plastic footwear — Lined or unlined poly(vinyl chloride) boots for general industrial use — Specification

ISO 4648:1991, Rubber, vulcanized or thermoplastic — Determination of dimensions of test pieces and products for test purposes

ISO 4649:2002, Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device

ISO 5423:1992, Moulded plastic footwear — Lined or unlined polyurethane boots for general industrial use — Specification