

Australian/New Zealand Standard™

Occupational protective gloves

Part 10.2: Protective gloves against chemicals and micro-organisms— Determination of resistance to penetration

AS/NZS 2161.10.2:2005

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-023, Occupational Protective Gloves. It was approved on behalf of the Council of Standards Australia on 9 March 2005 and on behalf of the Council of Standards New Zealand on 18 March 2005.

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RECONFIRMATION

OF

AS/NZS 2161.10.2:2005

Occupational protective gloves

Part 10.2: Protective gloves against chemicals and micro-organisms—

Determination of resistance to penetration

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NOTES

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-023, Occupational Protective Gloves, to supersede AS/NZS 2161.10.2:2002.

The objective of this Standard is to provide users and manufacturers with a method for testing gloves against leakages of air or water, so that such gloves are likely to provide a barrier to biologically hazardous material. The objective of this revision is to adopt the current edition of EN 374-2.

This Standard is identical with, and has been reproduced from EN 374-2:2003, *Protective gloves against chemicals and micro-organisms, Part 2: Determination of resistance to penetration*.

As this Standard is reproduced from a European Standard, the following applies:

- (a) Its number appears on the cover and title page while the European 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.

This Standard is Part 10.2 of the following series:

AS/NZS

2161 Occupational protective gloves

2161.10.1 Part 10.1: Protective gloves against chemicals and micro-organisms—Terminology and performance requirements

2161.10.2 Part 10.2: Protective gloves against chemicals and micro-organisms—Determination of resistance to penetration

2161.10.3 Part 10.3: Protective gloves against chemicals and micro-organisms—Determination of resistance to permeation by chemicals

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

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AUSTRALIAN/NEW ZEALAND STANDARD

Occupational protective gloves

Part 10.2:

Protective gloves against chemicals and micro-organisms—Determination of resistance to penetration

1 Scope

This European Standard specifies a test method for the penetration resistance of gloves that protect against chemicals and/or micro-organisms.

At this time it is believed that gloves which resist penetration, when tested according to this Part of EN 374, will form an effective barrier to micro-biological hazards.

2 Principle of tests

Air leak test:

A glove is immersed in water, and its interior is pressurised with air. A leak is detected by a stream of air bubbles from the surface of the glove.

Water leak test:

A glove is filled with water. A leak is detected by the appearance of water droplets on the outside of the glove.

This air leak procedure is not suitable for all gloves. For example parts of some gloves may be overinflated while other parts of the same gloves can only be partially inflated or not even filled at all with air. If the air leak test proves unsuitable, then only the water penetration test is carried out.

For both methods disregard leaks within the area of 40 mm from the edge of the liquidproof area.

3 Sampling

For the purpose of type-testing, the test sample will be one glove of each size, with an overall minimum of 4 gloves per performed test.

If one glove fails the penetration test, the glove shall be reported as having failed.

For the purpose of production control, e. g. by the manufacturer or auditing organisation, see annex A.

4 Apparatus

4.1 Air leak test

4.1.1 A circular fixing mandrel, tapered with an appropriate diameter range to effect an airtight seal with the glove to be tested. It should be capable of rotation through 180°.

4.1.2 Means of air inflation.

4.1.3 Water tank

4.1.4 Pressure gauge reading 0 kPa to 10 kPa.

4.1.5 Means of regulating the desired pressure.

Figures 1 and 2 show an example of a suitable apparatus.