

Australian/New Zealand Standard™

Furniture—Fixed height chairs

Part 4: Determination of stability— Chairs with tilting or reclining mechanisms when fully reclined, and rocking chairs

[ISO title: Furniture—Chairs—Determination of stability, Part 2: Chairs with tilting or reclining mechanisms when fully reclined, and rocking chairs]

AS/NZS 4688.4:2000

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Australia Post
Australian Chamber of Commerce and Industry
Australian Industry Group
Commercial Furniture Industry Association of Australia
Ergonomics Society of Australia
Furntech, Australia
National Furnishing Industry Association of Australia
New Zealand Furniture Manufacturers Federation
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PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee CS/88, Commercial Furniture. The Standard is identical with and has been reproduced from, ISO 7174-2:1992, *Furniture—Chairs—Determination of stability, Part 2: Chairs with tilting or reclining mechanisms when fully reclined, and rocking chairs*.

The objective of this Standard is to provide specifiers and manufacturers with a Standard for the determination of stability of rocking chairs and chairs with tilting or reclining mechanisms when fully reclined and enables purchasing authorities, retailers and users to use these criteria to assist in selection and evaluation.

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 International 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 equivalent Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS	
7174	Furniture—Chairs—Determination of stability	4688	Furniture—Chairs—Determination of stability
7174-1	Upright chairs and stools	4688.3	Part 3: Upright chairs

This Standard is Part 4 of a series for testing fixed height chairs. Other Parts in this series are as follows:

- Part 1: Ergonomic and general requirements
- Part 2: Determination of strength and durability
- Part 3: Determination of stability—Upright chairs

For chair types and chairs with pedestal bases not covered by this Standard refer to AS/NZS 4438, *Height adjustable swivel chairs* and AS/NZS 3813, *Plastic monobloc chairs*.

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AUSTRALIAN/NEW ZEALAND STANDARD

Furniture—Fixed height chairs

Part 4:

Determination of stability—Chairs with tilting or reclining mechanisms when fully reclined, and rocking chairs

1 Scope

This part of ISO 7174 describes methods for determining the rearward stability of chairs with tilting, reclining and adjustable back angle mechanisms when they are fully tilted or reclined, and of rocking chairs.

Forward and sideward stability of these chairs and of upright chairs is determined by methods described in ISO 7174-1. This part of ISO 7174 describes test methods only for the rearward stability of chairs when fully tilted or reclined, and should not be considered as an alternative test for upright chairs.

The test results are only valid for the article tested. When the test results are intended to be applied to other similar articles, the test specimen should be representative of the production model.

In the case of designs not catered for in the test procedures, the test is to be carried out as far as possible as described, and deviations from the test procedure recorded in the test report.

NOTE 1 This International Standard is one of a series being prepared on the strength, durability and stability of furniture. The series currently consists of the International Standards listed in annex A.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 7174. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7174 are encouraged to investigate the possibility of applying the most recent edi-

tion of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7174-1:1988, *Furniture — Chairs — Determination of stability — Part 1: Upright chairs and stools.*

3 Definition

For the purposes of this part of ISO 7174, the following definition applies.

3.1 stability: Ability to withstand forces that tend to cause the article to overturn. (ISO 7174-1:1988)

4 Representation of test person

The test methods are representative of a person sitting with arms stretched out or behind the head and legs under the chair, which is considered to be the configuration of the human form most likely to cause instability in chairs.

The test apparatus represents a person of 110 kg mass and a stature of 190 cm; therefore the test allows for normal dynamic loads generated by persons of less extreme size. The tests do not cover such dynamic activities as the sitter pushing the chair across the floor or tilting the chair violently.

5 Test equipment

5.1 Loading discs, with a mass of 10 kg each, diameter 350 mm and thickness 48 mm.

NOTE 2 For practical reasons this is the preferred test method but the development of apparatus representing the person [described in clause 4, see figure 2 a)] more realistically is considered desirable.