

Australian Standard<sup>®</sup>

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**Methods of test for textiles**

**Part 1: Conditioning procedures**

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This Australian Standard was prepared by Committee TX/20, Methods of Test for Textiles. It was approved on behalf of the Council of Standards Australia on 5 July 1995 and published on 5 October 1995.

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The following interests are represented on Committee TX/20:

Australian Chemical Specialities Manufacturers Association  
Australian Wool Research and Promotion Organization  
AWTA Textile Testing  
Commission Dyers and Finishers Association of Australia  
CSIRO, Division of Wool Technology  
Department of Defence  
National Association of Testing Authorities, Australia  
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**RECONFIRMATION**

**OF**

**AS 2001.1—1995**

**Methods of test for textiles**

**Part 1: Conditioning procedures**

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 6 July 2016.

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RMIT University  
The Textile Institute

## NOTES

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## PREFACE

This Standard was prepared by the Standards Australia Committee on Testing of Textiles to supersede AS 2001.1—1984, *Methods of test for textiles, Part 1: Conditioning procedures*.

This Standard is one of a series of test methods which take cognizance of the work of a technical committee of the International Organization for Standardization (ISO/TC 38, Textiles) but has been adapted to suit Australian conditions.

This Standard takes particular account of ISO 139—1973, *Textiles—Standard atmospheres for conditioning and testing*, and as such not only specifies a standard reference procedure but three additional procedures to cater for situations where the material is relatively dry, where high volume testing is required and where rapid conditioning is required. Procedures for preconditioning, determining the relative humidity, measuring and verifying the standard atmosphere along with a compliance check sheet are described in the Appendices.

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## FOREWORD

This edition differs from the 1984 edition of this Standard in that it clarifies a number of aspects which may have led to misinterpretations. The tolerances for the specified conditions have also been changed to reflect a more realistic set of conditions which can be obtained and measured using the plant/equipment available in most Australian laboratories. In addition, the cycle range has been specified to avoid excessive fluctuations of conditions, even though the average temperature and relative humidity over a 1 h period may meet the specified conditions.

Further, detailed information concerning the use of the aspirated psychrometer for determining relative humidity, and a table for converting the wet and dry-bulb temperatures to percent relative humidity has been provided (see Table B3 in Appendix B).

# STANDARDS AUSTRALIA

## Australian Standard

### Methods of test for textiles

#### Part 1: Conditioning procedures

**1 SCOPE** This Standard sets out procedures for conditioning samples and specimens of textile materials prior to testing. Four procedures are described as follows:

- (a) Method A—the standard reference method which shall be used in case of dispute.
- (b) Method B—a method for materials which are relatively dry.
- (c) Method C—a method for high volume testing.
- (d) Method D—a method for rapid conditioning.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

ISO

139 Textiles—Standard atmospheres for conditioning and testing

386 Liquid-in-glass laboratory thermometers—Principles of design, construction and use

**3 DEFINITIONS** For the purpose of this Standard, the definitions below apply.

**3.1 Conditioning**—a procedure whereby test samples are brought to equilibrium with an atmosphere having a specified temperature and relative humidity.

**3.2 Moisture equilibrium**—the condition attained when two successive weighings, at an interval of 15 min, of the material or sample freely exposed to the atmosphere in an air-conditioned laboratory or chamber, show a change in mass of not more than 0.1 percent of the last mass recorded.

**4 PRINCIPLE** The textile material is brought to moisture equilibrium with a standard atmosphere from the dry side by ensuring that it is in approximate equilibrium with an atmosphere of less than 15 percent relative humidity before freely exposing it to the standard atmosphere.

**5 APPARATUS** The required conditioning apparatus shall be as specified in either Item (a) or (b) below.

- (a) Air-conditioning equipment capable of providing and maintaining a standard atmosphere of  $65 \pm 3$  percent relative humidity at a temperature of  $20 \pm 2^\circ\text{C}$  (as specified in Appendices B and C) in a laboratory or chamber.

NOTE: With some air conditioning equipment it may be necessary to control the temperature to within closer tolerances to achieve the specified tolerances for relative humidity.

- (b) A rapid conditioning device capable of rapidly conditioning samples to moisture equilibrium similar to that obtained in the standard atmosphere as specified in Item (a) above.