Australian Standard™

Methods of test for elastomers

Method 20: Standard temperatures, humidities and times for conditioning and testing

PREFACE

This Standard was prepared by the Standards Australia Committee RU-003, Analysis and Testing of Elastomers to supersede AS 1683.20:1980, *Methods of test for rubber,* Method 20: *Standard temperatures, humidities and times for conditioning and testing test pieces*.

The objective of this Standard is to provide manufacturers and users of elastomeric materials with the temperature, humidity and time conditions to be used for the conditioning and testing of all types of rubber test pieces.

This Standard is identical with and has been reproduced from ISO 471:1995, *Rubber—Temperatures, humidities and times for conditioning and testing.*

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 Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

None of the documents referenced in this Standard have been adopted as Australian Standards.

Standards Australia

NOTES

1 Scope

This International Standard specifies the temperature, humidity and time conditions used for the conditioning and testing of all types of rubber test piece. Special conditions applicable to a particular test or material or simulating a particular climatic environment are not included, nor are special requirements for testing whole products. It also specifies the requirements for the time-interval to be observed between forming and testing of rubber test pieces and products. Such requirements are necessary to obtain reproducible test results and to minimize disagreement between customer and supplier.

NOTES

1 The conditioning treatment required for each individual test should be stated in the relevant test method.

2 This International Standard takes account of ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications.*

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing.*

ISO 3383:1985, *Rubber — General directions for achieving elevated or subnormal temperatures for test purposes.*

3 Definition

For the purposes of this International Standard, the following definition applies.

3.1 conditioning: Exposure of a rubber to a specified temperature and/or humidity for a stipulated period of time immediately before testing, in order to improve the reproducibility of test results.

4 Temperatures and humidities

4.1 standard laboratory temperature: The standard laboratory temperature shall be either 23 °C or 27 °C, in accordance with national practice.

NOTE 3 The temperature 23 °C is normally the standard laboratory temperature in temperate countries and 27 °C is normally the standard laboratory temperature in tropical and sub-tropical countries.

4.2 standard laboratory humidity: If control of both temperature and humidity is necessary, the standard laboratory humidity shall be 50 % relative humidity at 23 °C or 65 % relative humidity at 27 °C.

In certain cases, where there is a technical need due the presence of a textile component, the combination of 20 °C and 65 % relative humidity may be used provided that this condition is clearly stated in the test report. (See ISO 139.)

4.3 Other conditions

4.3.1 When control of temperature and humidity is not necessary, the prevailing ambient temperature and humidity shall be used.