

Australian Standard™

**Methods of test for elastomers**

**Method 23: Rubber—Vulcanized—  
Determination of resistance to liquids**

[ISO title: Rubber, vulcanized—Determination of the effect of liquids]



Standards Australia

This Australian Standard was prepared by Committee RU/3, Analysis and Testing of Elastomers. It was approved on behalf of the Council of Standards Australia on 15 September 2000 and published on 1 November 2000.

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The following interests are represented on Committee RU/3:

- Australasian Plastics and Rubber Institute
  - Australian Chamber of Commerce and Industry
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**RECONFIRMATION**

**OF**

**AS 1683.23–2000**

**Methods of test for elastomers**

**Method 23: Rubber–Vulcanized–Determination  
of resistance to liquids**

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 29 August 2018.

NOTES

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**Method 23: Rubber—Vulcanized—  
Determination of resistance to liquids**

Originated as AS 1180.7E—1972 and AS 1683.23—1983.  
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amalgamated and redesignated AS 1683.23—2000.

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## PREFACE

This Standard was prepared by the Standards Australia Committee RU/3, Analysis and Testing of Elastomers to supersede—

AS

1180.7E—1972 Methods of test for hose made from elastomeric materials  
Method 7E: Resistance to oil

1683.23—1983 Methods of test for rubber  
Method 23: Rubber—Vulcanized—Determination of resistance to liquids

The objective of this Standard is to provide manufacturers and suppliers and users with methods of evaluation the resistance of vulcanized thermoset and thermoplastic rubbers to the actions of liquids.

This edition is in alignment with ISO and removes the duplication of the equivalent procedures given in the superseded Standards.

This Standard is identical with and has been reproduced from ISO 1817:1999, *Rubber, vulcanized—Determination of the effect of liquids*.

The term ‘normative’ has been used in this Standard to define the application of the annex to which it applies. A ‘normative’ annex is an integral part of a Standard.

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- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
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- (c) A full point should be substituted for a comma when referring to a decimal marker.

There are no equivalent Australian Standards to the normative references listed in Clause 2.

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**WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.**

## 1 Scope

This International Standard describes methods of evaluating the resistance of vulcanized thermoset or thermoplastic rubbers to the action of liquids by measurement of properties of the rubbers before and after immersion in test liquids. The liquids concerned include current service liquids, such as petroleum derivatives, organic solvents and chemical reagents as well as reference test liquids.

## 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 37:1994, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties.*

ISO 48:1994, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD).*

ISO 175:—<sup>1</sup>, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals.*

ISO 471:1995, *Rubber — Temperatures, humidities and times for conditioning and testing.*

ISO 2592:—<sup>2</sup>, *Petroleum products — Determination of flash and fire points — Cleveland open cup method.*

ISO 277:1997, *Petroleum products and hydrocarbon solvents — Determination of aniline point and mixed aniline point.*

ISO 3016:1994, *Petroleum products — Determination of pour point.*

ISO 3104:1994, *Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity.*

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1) To be published. (Revision of ISO 175:1981)

2) To be published. (Revision of ISO 2592:1973)