

Australian Standard™

**Determination of tensile properties of  
plastics materials**

**Part 2: Test conditions for moulding  
and extrusion plastics**

[ISO title: Plastics—Determination of tensile properties, Part 2: Test conditions  
for moulding and extrusion plastics]



**S t a n d a r d s** Australia

This Australian Standard was prepared by Committee PL-010, Methods of Testing Plastics. It was approved on behalf of the Council of Standards Australia on 27 October 2000 and published on 27 February 2001.

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The following interests are represented on Committee PL-010:

CSIRO Building, Construction and Engineering  
Plastics and Chemicals Industries Association  
Royal Australian Chemical Institute  
Telstra Corporation

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## PREFACE

This Standard was prepared by the Standards Australia Committee PL-010, Methods of Testing Plastics

This Standard is identical to and is reproduced from ISO 527-2:1993, *Plastics—Determination of tensile properties, Part 2: Test conditions for moulding and extrusion plastics*, and ISO 527-2:1993/Cor. 1:1994. Amendments are indicated by a bar line set adjacent to the affected clause, figure, table, or part thereof.

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The objective of this Standard is to provide testing agencies with a means of establishing conditions for testing of moulding and extrusion plastics.

As this Standard is reproduced from an International Standard, the following applies:

- (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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<i>Reference to International Standard</i>		<i>Australian or Australian/New Zealand Standard</i>	
ISO/IEC		AS/NZS	
37	Rubber, vulcanized—Determination of tensile stress-strain properties	1699.1	Methods of test for elastomers—Tension testing of vulcanised rubber
527	Plastics—Determination of tensile properties	1145	Determination of tensile properties of plastics materials
527-1	Part 1: General principals	1145.1	Part 1: General principals

## AUSTRALIAN STANDARD

**Determination of tensile properties of plastics materials**

## Part 2:

## Test conditions for moulding and extrusion plastics

**1 Scope**

**1.1** This part of ISO 527 specifies the test conditions for determining the tensile properties of moulding and extrusion plastics, based upon the general principles given in ISO 527-1.

**1.2** The methods are selectively suitable for use with the following range of materials:

- rigid and semirigid thermoplastics moulding, extrusion and cast materials, including compounds filled and reinforced by e.g. short fibres, small rods, plates or granules but excluding textile fibres (see ISO 527-4 and ISO 527-5) in addition to unfilled types;
- rigid and semirigid thermosetting moulding and cast materials, including filled and reinforced compounds but excluding textile fibres as reinforcement (see ISO 527-4 and ISO 527-5);
- thermotropic liquid crystal polymers.

The methods are not suitable for use with materials reinforced by textile fibres (see ISO 527-4 and ISO 527-5), with rigid cellular materials or sandwich structures containing cellular material.

**1.3** The methods are applied using specimens which may be either moulded to the chosen dimensions or machine cut or punched from injection- or compression-moulded plates. The multipurpose test specimen is preferred (see ISO 3167:1993, *Plastics — Multipurpose test specimens*).

1) To be published. (Revision of ISO 294:1975)

2) To be published. (Revision of ISO 2818:1980)

**2 Normative references**

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 527. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 527 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 37:1977, *Rubber, vulcanized — Determination of tensile stress-strain properties*.

ISO 293:1986, *Plastics — Compression moulding test specimens of thermoplastic materials*.

ISO 294:—<sup>1)</sup>, *Plastics — Injection moulding of test specimens of thermoplastic materials*.

ISO 295:1991, *Plastics — Compression moulding of test specimens of thermosetting materials*.

ISO 527-1:1993, *Plastics — Determination of tensile properties — Part 1: General principles*.

ISO 1926:1979, *Cellular plastics — Determination of tensile properties of rigid materials*.

ISO 2818:—<sup>2)</sup>, *Plastics — Preparation of test specimens by machining*.