AS 1145.3—2001
ISO 527-3:1995
ISO 527-3:1995/Cor.1:1998

Australian Standard™

Determination of tensile properties of plastics materials

Part 3: Test conditions for films and sheets

[ISO title: Plastics—Determination of tensile properties, Part 3: Test conditions for films and sheets]

Standards 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.

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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This Standard was issued in draft form for comment as DR 00059.

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First published as AS 1145.3—2001.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 3678 5

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 527-3:1995 (E), *Plastics—Determination of tensile properties,* Part 3: *Test conditions for films and sheets,* and ISO 527-3:1995/Cor.1:1995. Amendments are indicated by a bar line set adjacent to the affected clause, figure, table, or part thereof.

The objective of this Standard is to provide testing agencies with a means for establishing conditions for testing of plastic films and sheets.

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.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

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Reference to International Standard		*Australian or Australian/New Zealand Standard*	
ISO/IEC		AS/NZS	
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
4591	Plastics—Film and sheeting—Determination of average thickness of a sample, and average thickness and yield of a roll, by gravimetric techniques (gravimetric thickness)	—	
4593	Plastics—Film and sheeting—Determination of thickness by mechanical scanning	—	

AUSTRALIAN STANDARD

Determination of tensile properties of plastics materials—

Part 3:
Test conditions for films and sheets

1 Scope

1.1 This part of ISO 527 specifies the conditions for determining the tensile properties of plastic films or sheets less than 1 mm thick, based upon the general principles given in part 1.

NOTE 1 For sheets greater than 1 mm thick, the user is referred to part 2 of this International Standard.

1.2 See ISO 527-1, subclause 1.2.

1.3 This part of ISO 527 is not normally suitable for determining the tensile properties of:

a) cellular materials;

b) plastics reinforced by textile fibres.

1.4 See ISO 527-1, subclause 1.5.

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

ISO 4591:1992, *Plastics — Film and sheeting — Determination of average thickness of a sample, and average thickness and yield of a roll by gravimetric techniques (gravimetric thickness).*

ISO 4593:1993, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning.*

3 Principle

See ISO 527-1, clause 3.

4 Definitions

See ISO 527-1, clause 4.

5 Apparatus

See ISO 527-1, clause 5, subject to the following additional requirements:

In 5.1.2, the tensile-testing machine shall be capable of maintaining the speeds of testing as specified in table 1 of ISO 527-1. It is normal for films and sheets to be tested at a speed of 5 mm/min, 50 mm/min, 100 mm/min, 200 mm/min, 300 mm/min or 500 mm/min. The information contained in ISO 527-1, subclause 9.6, also applies.