



SLOVENSKI STANDARD
oSIST prEN ISO 527-1:2010
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Polimerni materiali - Določanje nateznih lastnosti - 1. del: Splošna načela (ISO/DIS 527-1:2010)

Plastics - Determination of tensile properties - Part 1: General principles (ISO/DIS 527-1:2010)

Kunststoffe - Bestimmung der Zugeigenschaften - Teil 1: Allgemeine Grundsätze (ISO/FDIS 527-1:2010)

Plastiques - Détermination des propriétés en traction - Partie 1: Principes généraux (ISO/DIS 527-1:2010)

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83.080.01

Polimerni materiali na
splošno

Plastics in general

oSIST prEN ISO 527-1:2010

en

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN ISO 527-1

April 2010

ICS 83.080.01

Will supersede EN ISO 527-1:1996

English Version

**Plastics - Determination of tensile properties - Part 1: General
principles (ISO/DIS 527-1:2010)**

Plastiques - Détermination des propriétés en traction -
Partie 1: Principes généraux (ISO/DIS 527-1:2010)

Kunststoffe - Bestimmung der Zugeigenschaften - Teil 1:
Allgemeine Grundsätze (ISO/FDIS 527-1:2010)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 249.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN ISO 527-1:2010) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 527-1:1996.

Endorsement notice

The text of ISO/DIS 527-1:2010 has been approved by CEN as a prEN ISO 527-1:2010 without any modification.

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DRAFT INTERNATIONAL STANDARD ISO/DIS 527-1

ISO/TC 61/SC 2

Secretariat: AENOR

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Plastics — Determination of tensile properties —

Part 1:

General principles

Plastiques — Détermination des propriétés en traction —

Partie 1: Principes généraux

(Revision of first edition of ISO 527-1:1993, ISO 527-1:1993/Cor.1:1994 and ISO 527-1:1993/Amd.1:2005)

ICS 83.080.01

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

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ISO/DIS 527-1

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Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 527-1 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *mechanical properties*.

This second edition cancels and replaces the first edition (ISO 527-1:1993), [of which has been technically revised.

ISO 527 consists of the following parts, under the general title *Plastics — Determination of tensile properties*:

- *Part 1: General principles*
- *Part 2 : Test conditions for moulding and extrusion plastics*
- *Part 3: Test conditions for films and sheets:*
- *Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastic composites*
- *Part 5: Test conditions for unidirectional fibre-reinforced plastic composites*

Introduction

This revision of ISO 527-1 has changed compared to the former version in the following aspects:

- A method for the determination of the Poisson ratio has been introduced. It is similar to the one used in ASTM D638, but in order to overcome difficulties with precision of the determination of the lateral contraction at small values of the longitudinal strain, the strain interval is extended far beyond the strain region for the modulus determination.
- Definitions and methods have been optimised for computer controlled tensile test machines.
- The gage length for use on the multipurpose test specimen has been increased from 50 mm to 75 mm. This will be used especially for Part 2 and be moved there. Part 1 will remain a general document.
- For multipurpose test specimens the strain after yielding is calculated as the sum of the strain at yield, determined with an extensometer, and the (nominal) strain increment, determined as post yield crosshead displacement relative to a nominal gage length of also 75 mm. For QC-purposes and where specified the continued use of 50 mm gage length is allowed
- Stress at break and nominal strain will be reinstated as discussed in Rome

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