



# SLOVENSKI STANDARD SIST EN ISO 2818:2000

01-maj-2000

---

## Polimerni materiali - Strojna priprava preskušancev (ISO 2818:1994)

Plastics - Preparation of test specimens by machining (ISO 2818:1994)

Kunststoffe - Herstellung von Probekörpern durch mechanische Bearbeitung (ISO 2818:1994)

Plastiques - Préparation des éprouvettes par usinage (ISO 2818:1994)

**STANDARD PREVIEW**  
**(standards.iteh.ai)**

Ta slovenski standard je istoveten z: **EN ISO 2818:1996**

SIST EN ISO 2818:2000  
<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>

### ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general
-----------	--------------------------------	---------------------

**SIST EN ISO 2818:2000**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 2818:2000

<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>

EUROPEAN STANDARD

EN ISO 2818

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 1996

ICS 83.080

Descriptors: see ISO document

English version

**Plastics - Preparation of test specimens by  
machining (ISO 2818:1994)**Plastiques - Préparation des éprouvettes par  
usinage (ISO 2818:1994)Kunststoffe - Herstellung von Probekörpern  
durch mechanische Bearbeitung (ISO 2818:1994)**(standards.iteh.ai)**SIST EN ISO 2818:2000<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>

This European Standard was approved by CEN on 1996-11-25. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Page 2  
EN ISO 2818:1996

## Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 1997, and conflicting national standards shall be withdrawn at the latest by June 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 2818:1980 has been approved by CEN as a European Standard without any modification.

**ITeH STANDARD PREVIEW**  
(standards.iteh.ai)  
<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>

INTERNATIONAL  
STANDARD

**ISO**  
**2818**

Third edition  
1994-08-15

---

---

**Plastics — Preparation of test specimens  
by machining**

**iTeh STANDARD PREVIEW**  
*Plastiques — Préparation des éprouvettes par usinage*  
**(standards.iteh.ai)**

SIST EN ISO 2818:2000

<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>



Reference number  
ISO 2818:1994(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2818 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical properties*.

This third edition cancels and replaces the second edition (ISO 2818:1980), which has been revised with respect to the following points:

- normative references for the geometry of cutting tools and abrasive tools and products;
- introduction of notching;
- extension of the table for recommended machining conditions.

Annex A of this International Standard is for information only.

© ISO 1994

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Introduction

The preparation of test specimens by machining influences the finished surfaces and, in some cases, even the internal structure of the specimens. Since test results are strongly dependent on both of these parameters, exact definitions of tools and machining conditions are required for reproducible test results with machined specimens.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 2818:2000](https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000)

<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>

**iTeh STANDARD PREVIEW**  
This page intentionally left blank  
**(standards.iteh.ai)**

SIST EN ISO 2818:2000

<https://standards.iteh.ai/catalog/standards/sist/4a751e4e-9ee9-4b49-a821-648908ca107e/sist-en-iso-2818-2000>



# Plastics — Preparation of test specimens by machining

## 1 Scope

This International Standard establishes the general principles and procedures to be followed when machining and notching test specimens from compression-moulded and injection-moulded plastics, extruded sheets, plates and partially finished or wholly finished products.

In order to establish a basis for reproducible machining and notching conditions, the following general standardized conditions should be applied. It is assumed, however, that the exact procedures to be used will be selected or specified by the relevant material specification or by the standards on the particular test methods. If sufficiently detailed procedures are not thus specified, it is essential that the interested parties agree on the conditions to be used.

## 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 3002-1:1982, *Basic quantities in cutting and grinding — Part 1: Geometry of the active part of cutting tools — General terms, reference systems, tool and working angles, chip breakers.*

ISO 3017:1981, *Abrasive discs — Designation, dimensions and tolerances — Selection of disc outside diameter/centre hole diameter combinations.*

ISO 3855:1977, *Milling cutters — Nomenclature.*

ISO 6104:1979, *Abrasive products — Diamond or cubic boron nitride grinding wheels and saws — General survey, designation and multilingual nomenclature.*

ISO 6106:1979, *Abrasive products — Grain sizes of diamond or cubic boron nitride.*

ISO 6168:1980, *Abrasive products — Diamond or cubic boron nitride grinding wheels — Dimensions.*

## 3 Definitions

For the purposes of this International Standard, the following definitions apply:

### 3.1 Milling

In this machining operation, the tool has a circular primary motion and the workpiece a suitable feed motion. The axis of rotation of the primary motion retains its position with respect to the tool, independently of the feed motion (see ISO 3855). Complete dumb-bell and rectangular test specimens, as well as notches in finished specimens, may be prepared by milling.

#### 3.1.1 Geometry (see 3002-1 and figure 1)

Only a few details of the exact geometrical conditions of the milling tool and its position with respect to the workpiece given in ISO 3002-1 are relevant to this standard, as follows:

**3.1.1.1 tool-cutting-edge angle,  $\alpha_r$ :** The angle between the tool-cutting-edge plane  $P_s$  and the assumed working plane  $P_f$ , measured in the tool back plane  $P_r$ .

**3.1.1.2 tool back clearance,  $\alpha_p$ :** The angle between the flank  $A_x$  of the cutter and the tool-cutting-edge plane  $P_s$ , measured in the tool back plane  $P_p$ .