



SLOVENSKI STANDARD SIST EN ISO 306:2004

01-oktober-2004

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SIST EN ISO 306:2000

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Plastics - Thermoplastic materials - Determination of Vicat softening temperature (VST)
(ISO 306:2004)

Kunststoffe - Thermoplaste - Bestimmung der Vicat-Erweichungstemperatur (VST) (ISO
306:2004)

Plastiques - Matieres thermoplastiques - Détermination de la température de
ramollissement Vicat (VST) (ISO 306:2004)

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Ta slovenski standard je istoveten z: EN ISO 306:2004

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83.080.20 Plastomeri Thermoplastic materials

SIST EN ISO 306:2004 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 306

July 2004

ICS 83.080.20

English version

Plastics - Thermoplastic materials - Determination of Vicat softening temperature (VST) (ISO 306:2004)

Plastiques - Matières thermoplastiques - Détermination de la température de ramollissement Vicat (VST) (ISO 306:2004)

Kunststoffe - Thermoplaste - Bestimmung der Vicat-Erweichungstemperatur (VST) (ISO 306:2004)

This European Standard was approved by CEN on 7 July 2004.

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This European Standard exists 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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN ISO 306:2004 (E)**Foreword**

This document (EN ISO 306:2004) 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 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of an identical text or by endorsement, at the latest by January 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 306:2004 has been approved by CEN as EN ISO 306 2004 without any modifications.

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INTERNATIONAL
STANDARD

ISO
306

Fourth edition
2004-07-15

**Plastics — Thermoplastic materials —
Determination of Vicat softening
temperature (VST)**

*Plastiques — Matières thermoplastiques — Détermination de la
température de ramollissement Vicat (VST)*

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ISO 306:2004(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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

This fourth edition cancels and replaces the third edition (ISO 306:1994), which has been technically revised to address new equipment designs in which the specimen is not heated in a liquid bath but by direct contact with, for instance, a hot metal block. The oven used as one of the possible items of heating equipment in ISO 306:1994 is no longer included.

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Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST)

1 Scope

1.1 This International Standard specifies four methods for the determination of the Vicat softening temperature (VST) of thermoplastic materials:

- Method A50 using a force of 10 N and a heating rate of 50 °C/h
- Method B50 using a force of 50 N and a heating rate of 50 °C/h
- Method A120 using a force of 10 N and a heating rate of 120 °C/h
- Method B120 using a force of 50 N and a heating rate of 120 °C/h.

1.2 The methods specified are applicable only to thermoplastics, for which they give a measure of the temperature at which the thermoplastics start to soften rapidly.

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2 Normative references (standards.iteh.ai)

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

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

ISO 294-1, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 1: General principles, and moulding of multipurpose and bar test specimens*

ISO 294-2, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 2: Small tensile bars*

ISO 294-3, *Plastics — Injection moulding of test specimens of thermoplastic materials — Part 3: Small plates*

ISO 2818, *Plastics — Preparation of test specimens by machining*

ISO 3167, *Plastics — Multipurpose test specimens*

3 Principle

The temperature at which a standard indenting tip with a flat point penetrates 1 mm into the surface of a plastic test specimen is determined. The indenting tip exerts a specified force perpendicular to the test specimen, while the specimen is heated at a specified and uniform rate.

The temperature, in degrees Celsius, of the specimen, measured as close as possible to the indented area at 1 mm penetration, is quoted as the VST.