



**SLOVENSKI STANDARD**  
**SIST EN ISO 1567:2001**  
**01-november-2001**

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**SIST EN ISO 1567:2000**

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**Dentistry - Denture base polymers (ISO 1567:1999)**

Dentistry - Denture base polymers (ISO 1567:1999)

Zahnheilkunde - Prothesenkunststoffe (ISO 1567:1999)

Art dentaire - Polymeres pour base de protheses dentaires (ISO 1567:1999)

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**Ta slovenski standard je istoveten z: EN ISO 1567:2000**

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**ICS:**

11.060.10 Z[ à[ c @ ã } ã æ | ä ã Dental materials

**SIST EN ISO 1567:2001** **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 1567**

April 2000

ICS 11.060.10

Supersedes EN ISO 1567:1995

English version

## Dentistry - Denture base polymers (ISO 1567:1999)

Art dentaire - Polymères pour base de prothèses dentaires  
(ISO 1567:1999)

Zahnheilkunde - Prothesenkunststoffe (ISO 1567:1999)

This European Standard was approved by CEN on 1 March 2000.

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.

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.

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

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

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

## Foreword

The text of the International Standard from Technical Committee ISO/TC 106 "Dentistry" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 55 "Dentistry", the secretariat of which is held by DIN.

This European Standard replaces EN ISO 1567:1995

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 October 2000, and conflicting national standards shall be withdrawn at the latest by October 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, 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 1567:1999 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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**Annex ZA**  
(normative)**Normative references to international publications with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/DIS 463	1996	Geometrical product specifications (GPS) Dimensional measuring instruments: Dial gauges - Design and metrological requirements	prEN 463	1996
ISO 1942-1	1989	Dental vocabulary - Part 1: General and clinical terms	EN 21942-1	1991
ISO 1942-2	1989	Dental vocabulary - Part 2: Dental materials	EN 21942-2	1992
ISO 1942-5	1989	Dental vocabulary - Part 5: Terms associated with testing	EN ISO 1942-5	1994
ISO 3336	1993	Dentistry - Synthetic polymer teeth	EN ISO 3336	1996
ISO 3696	1987	Water for analytical laboratory use - Specification and test methods	EN ISO 3696	1995
ISO 7491	1985	Dental materials - Determination of colour stability of dental polymeric materials	EN 27491	1991
ISO 8601	1988	Data elements and interchange formats - Information interchange - Representation of dates and times	EN 28601	1992

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# INTERNATIONAL STANDARD

**ISO  
1567**

Third edition  
1999-02-15

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## Dentistry — Denture base polymers

*Art dentaire — Polymères pour base de prothèses dentaires*

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Reference number  
ISO 1567:1999(E)

## ISO 1567:1999(E)

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## 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 1567 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthetic materials*.

This third edition cancels and replaces the second edition (ISO 1567:1988), which has been technically revised.

Significant differences between this third edition and the second edition are:

- two new categories of material (light-activated and microwave-cured) have been added as Type 4 and Type 5 to Classification (clause 4);
- requirements and tests previously identified as transverse deflection properties are now identified as "flexural strength" (5.2.7 and 8.5.3.5) and "flexural modulus" (5.2.8 and 8.5.3.5); the determination of flexural strength and flexural modulus require force per unit area calculations;
- a requirement and tests for residual methyl methacrylate monomer content (5.2.10 and 8.7) have been added.

Annex A forms an integral part of this International Standard. Annex B is for information only.

## Introduction

Specific qualitative and quantitative requirements for freedom from biological hazard are not included in this International Standard, but it is recommended that, in assessing possible biological or toxicological hazards, reference be made to ISO 10993-1 and ISO 7405.

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# Dentistry — Denture base polymers

## 1 Scope

**1.1** This International Standard classifies denture base polymers and copolymers and specifies their requirements. It also specifies the test methods to be used in determining compliance with these requirements. It further specifies requirements with respect to packaging and marking the products and to the instructions to be supplied for use of these materials.

**1.2** Although this International Standard does not require manufacturers to declare details of the composition, attention is drawn to the fact that some national or international authorities require such details to be provided.

**1.3** This International Standard applies to denture base polymers such as those listed below.

- a) Poly(acrylic acid esters);
- b) poly(substituted acrylic acid esters);
- c) poly(vinyl esters);
- d) polystyrene;
- e) rubber-modified poly(methacrylic acid esters);
- f) polycarbonates;
- g) polysulfones;
- h) poly(dimethacrylic acid esters);
- i) polyacetals (polyoxymethylene);
- j) copolymers or mixtures of the polymers listed in a) through i).

## 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 463: —<sup>1)</sup>, *Geometrical product specifications (GPS) — Dimensional measuring instruments: Dial gauges — Design and metrological requirements.*

ISO 1942-1:1989, *Dental vocabulary — Part 1: General and clinical terms.*

<sup>1)</sup> To be published. (Revision of ISO 463:1988)

ISO 1942-2:1989, *Dental vocabulary — Part 2: Dental materials.*

ISO 1942-5:1989, *Dental vocabulary — Part 5: Terms associated with testing.*

ISO 3336:1993, *Dentistry — Synthetic polymer teeth.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

ISO 7491:1985, *Dental materials — Determination of colour stability of dental polymeric materials.*

ISO 8601:1988, *Data elements and interchange formats — Information interchange — Representation of dates and times.*

### 3 Definitions

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

#### 3.1

##### **autopolymerizable polymers**

products having polymerization initiated by chemical means and not requiring application of verifiable temperatures above 65 °C to complete the process

#### 3.2

##### **capsulated material**

material consisting of two or more components supplied in a container which keeps them separated until the time they are mixed together and dispensed for use directly from the container

#### 3.3

##### **denture**

artificial substitute for missing natural teeth and adjacent tissues, to include also any additions needed for optimum function

#### 3.4

##### **denture base**

that part of a denture which rests on soft tissue foundations and to which teeth are added

#### 3.5

##### **heat-polymerizable polymer**

product requiring application of verifiable temperatures above 65 °C to complete polymerization

#### 3.6

##### **immediate container**

container which is in direct contact with the denture base materials

#### 3.7

##### **liquid**

monomeric fluid to be mixed with polymeric particles to form a mouldable dough or fluid resin mixture used for forming denture bases

#### 3.8

##### **outer packaging**

labelled container or wrapping within which other containers are packed

#### 3.9

##### **packing**

(of a denture) the act of filling a denture base mould with a material (using a compression, pour or injection technique) to form a denture base