SLOVENSKI STANDARD
SIST EN ISO 1562:2000

01-januar-2000

Dental casting gold alloys (ISO 1562:1993)

Dental casting gold alloys (ISO 1562:1993)

Dental-Goldgußlegierungen (ISO 1562:1993)

Alliages d'or dentaires a couler (ISO 1562:1993)

Ta slovenski standard je istoveten z: **EN ISO 1562:1995**

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English version

Dental casting gold alloys (ISO 1562:1993)

Alliages d'or dentaires à couler (ISO 1562:1993)

Dental-Goldgußlegierungen (ISO 1562:1993)

This European Standard was approved by CEN on 1995-01-12. 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

Foreword

This European Standard has been taken over by Technical Committee CEN/TC 55 "Dentistry" from the work of ISO/TC 106 "Dentistry" of the International Standardization Organization (ISO).

The text was submitted to the Updating Questionnaire Procedure (UQ) and approved as a European Standard.

This European Standard replaces EN 21562:1989.

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of an identical text or by endorsement, at the latest by August 1995, and conflicting national standards shall be withdrawn at the latest by August 1995.

In accordance with the CEN/CENELEC Internal Regulations, 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 United Kingdom.

Endorsement notice

The text of the International Standard ISO 1562:1993 was approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO 1562

Third edition
1993-12-01

Dental casting gold alloys

Alliages d'or dentaires à couler

Reference number
ISO 1562:1993(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 1562 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Sub-Committee SC 2, *Prosthodontic materials*.

This third edition cancels and replaces the second edition (ISO 1562:1984), of which it constitutes a technical revision.

Annex A forms an integral part of this International Standard.

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Introduction

Specific quantitative and qualitative 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 should be made to ISO/TR 7405:1984, *Biological evaluation of dental materials*, or any more recent edition.

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Dental casting gold alloys

1 Scope

This International Standard gives the classification of, and specifies requirements and test methods for gold-based dental casting alloys with a content of at least 75 % (*m/m*) of gold and platinum group metals.

It applies to casting alloys suitable for the fabrication of dental restorations and appliances.

It does not apply to alloys intended for use as the substructure of a metallo-ceramic restoration, which is covered by ISO 9693; nor does it apply to dental casting alloys with noble metal content of 25 % up to but not including 75 %, which are covered by ISO 8891.

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

ISO 6892:1984, *Metallic materials — Tensile testing.*

3 Classification

For the purposes of this International Standard, dental casting gold alloys are classified, according to their physical properties and the application for which they are recommended, as follows:

Type 1: low-strength — for castings subject to very slight stress, e.g. inlays;

Type 2: medium-strength — for castings subject to moderate stress, e.g. inlays and onlays;

Type 3: high-strength — for castings subject to high stress, e.g. onlays, thin cast backings, pontics, full crowns and saddles;

Type 4: extra-high-strength — for castings subject to very high stress and thin cross-section, e.g. saddles, bars, clasps, thimbles, unit casings and partial denture frameworks.

4 Requirements

4.1 Chemical composition

Dental casting gold alloys shall contain at least 65 % (*m/m*) of gold, and at least 75 % (*m/m*) of gold and platinum group metals.

NOTE 1 Suitable platinum group metals are platinum, palladium, iridium, ruthenium and rhodium.

The percentage of each of the constituents in the alloy shall be within 0,5 % (*m/m*) of the values stated on the package label or insert [see 9.2 c)].

If there are any hazardous constituents, their percentage shall not exceed the amount indicated on the outer package [see 9.2 j)].

Standard analytical procedures shall be used for determining the composition.

4.2 Biocompatibility

See the Introduction for guidance on biocompatibility.