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# SLOVENSKI STANDARD
# SIST EN ISO 10271:2002

## 01-maj-2002

**Dental metallic materials - Corrosion test methods (ISO 10271:2001)**

Dental metallic materials - Corrosion test methods (ISO 10271:2001)

Dentale metallische Werkstoffe - Korrosionsprüfverfahren (ISO 10271:2001)

Produits dentaires métalliques - Méthodes pour les essais de corrosion (ISO 10271:2001)

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**Ta slovenski standard je istoveten z:** **EN ISO 10271:2001**

## ICS:

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**SIST EN ISO 10271:2002**                        **en**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

**EN ISO 10271**

June 2001

ICS 01.006.10

English version

## Dental metallic materials - Corrosion test methods (ISO 10271:2001)

Produits dentaires métalliques - Méthodes pour les essais de corrosion (ISO 10271:2001)

Dentale metallische Werkstoffe - Korrosionsprüfverfahren (ISO 10271:2001)

This European Standard was approved by CEN on 1 June 2001.

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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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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**Management Centre: rue de Stassart, 36    B-1050 Brussels**

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**EN ISO 10271:2001 (E)**

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## Foreword

The text of the International Standard ISO 10271:2001 has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by December 2001, and conflicting national standards shall be withdrawn at the latest by December 2001.

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 10271:2001 was 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.

| Publication | Year | Title | EN | Year |
|---|---|---|---|---|
| ISO 1562 | 1993 | Dental casting gold alloys | EN ISO 1562 | 1995 |
| ISO 3696 | 1987 | Water for analytical laboratory use – Specification and test methods | EN ISO 3639 | 1995 |
| ISO 8891 | 1998 | Dental casting alloys with noble metal content of at least 25 % but less than 75 % | EN ISO 8891 | 1998 |
| ISO 9333 | 1990 | Dental brazing alloys | EN 29333 | 1991 |
| ISO 9693 | 2000 | Metal-ceramic dental restorative sytems | EN ISO 9693 | 2000 |

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# INTERNATIONAL STANDARD

# ISO
# 10271

First edition
2001-06-01

# Dental metallic materials — Corrosion test methods

*Produits dentaires métalliques — Méthodes pour les essais de corrosion*

Reference number
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**ISO 10271:2001(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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10271 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthodontic materials*.

This first edition cancels and replaces ISO/TR 10271:1993 which has been technically revised, in particular by the inclusion of a wider range of test methods.

Annex A of this International Standard is for information only.

# Introduction

ISO 10271 was developed from the original Technical Report (ISO/TR 10271) as a result of worldwide demand for standard test methods to determine acceptability of metallic materials for oral restorations in relation to corrosion.

The testing of the corrosion behaviour of metallic materials in dentistry is complicated by the diversity of the materials themselves, their applications and the environment to which they are exposed. Variation occurs between devices and within the same device during the exposure time. The type of corrosion behaviour or effect may also vary with exposure time. Accordingly, it is not possible to specify a single test capable of covering all situations, nor is it a practical proposition to define a test for each situation. This International Standard therefore gives detailed protocols for test methods which have been found to be of merit as evidenced by considerable use.

In addition, an informative annex (annex A) is provided that sets out a protocol for each element of the test system such that a consistent approach may be taken for the development of further test methods. Equally, it is recognized that any element can only represent the current recommendation, but changes in the future are unlikely to change the framework

It is not the purpose of this International Standard to propose corrosion test methods for specific applications or to set limits as precise as those in the standard relating to the type of product and its application.

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