

ICS: 11.060.10

Geregistreeerde Belgische norm

NBN EN ISO 7491

2e uitg., november 2000

Normklasse: S 32

Tandheelkundige materialen - Vaststelling van kleurstabieleit (ISO 7491:2000)

Produits dentaires - Détermination de la stabilité de couleur (ISO 7491:2000)

Dental materials - Determination of colour stability (ISO 7491:2000)

Toelating tot publicatie: 22 november 2000

Vervangt NBN EN 27491 (1992).

Deze Europese norm EN ISO 7491: 2000 heeft de status van een Belgische norm.

Deze Europese norm bestaat in drie officiële versies (Duits, Engels, Frans).



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ICS: 11.060.10

***norme belge
enregistrée***

NBN EN ISO 7491

2e éd., novembre 2000

Indice de classement: S 32

Produits dentaires - Détermination de la stabilité de couleur (ISO 7491:2000)

Tandheelkundige materialen - Vaststelling van kleurstabiliteit (ISO 7491:2000)

Dental materials - Determination of colour stability (ISO 7491:2000)

Autorisation de publication: 22 novembre 2000

Remplace NBN EN 27491 (1992).

La présente norme européenne EN ISO 7491: 2000 a le statut d'une norme belge.

La présente norme européenne existe en trois versions officielles (allemand, anglais, français).



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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 7491

September 2000

ICS 01.006.10

Supersedes EN 27491:1991

English version

Dental materials - Determination of colour stability (ISO
7491:2000)

Produits dentaires - Détermination de la stabilité de couleur
(ISO 7491:2000)

Zahnärztliche Werkstoffe - Bestimmung der
Farbbeständigkeit (ISO 7491:2000)

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

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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
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN ISO 7491:2000

Foreword

The text of the International Standard ISO 7491:2000 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 supersedes EN 27491:1991.

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 March 2001, and conflicting national standards shall be withdrawn at the latest by March 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 7491:2000 was approved by CEN as a European Standard without any modification.

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

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 3696	1987	Water for analytical laboratory use – Specification and test methods	EN ISO 3696	1995
ISO 4892-2	1994	Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc sources	EN ISO 4892-2	1999

INTERNATIONAL STANDARD

ISO 7491

Second edition
2000-09-01

Dental materials — Determination of colour stability

Produits dentaires — Détermination de la stabilité de couleur



Reference number
ISO 7491:2000(E)

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Printed in Switzerland

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 7491 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthetic materials*.

This second edition cancels and replaces the first edition (ISO 7491:1985), which has been technically revised.

ISO 7491:2000(E)

Introduction

Colour stability is an important characteristic of dental materials and it is expected that the test methods in this International Standard will be referred to in the International Standards specifying such materials.

Dental materials — Determination of colour stability

1 Scope

This International Standard specifies a method for the determination of the colour stability of dental materials after exposure to light and water.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

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

ISO 4892-2, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc sources*.

CIE Publication 15.2, *Colorimetry*.

3 Test methods

3.1 Apparatus

3.1.1 Radiation source

Xenon medium-pressure lamp with a colour temperature of 5 000 K to 10 000 K and with an illuminance at the specimen of 150 000 lx. Any deviation of the illuminance from the mean value at any given moment shall not exceed $\pm 10\%$ over the entire area occupied by the test specimen, measured in accordance with ISO 4892-2.

Other radiation sources of performance equivalent to the xenon lamp are also suitable.

The xenon lamp and the ultraviolet filter (3.1.2) should normally be replaced after 1 500 h use because of the change in radiation intensity due to ageing. The illuminance should be measured with a suitable illumination meter and the illuminance adjusted accordingly.

3.1.2 Ultraviolet filter, of borosilicate glass, with transmittance of less than 1 % below 300 nm and greater than 90 % above 370 nm.

3.1.3 Test chamber

The test chamber comprises the following components.