



SLOVENSKI STANDARD SIST EN ISO 10650:2015

01-december-2015

Nadomešča:

SIST EN ISO 10650-1:2005

SIST EN ISO 10650-2:2008

Zobozdravstvo - Polimerizacijski aktivatorji (ISO 10650:2015)

Dentistry - Powered polymerization activators (ISO 10650:2015)

Zahnheilkunde - Polymerisationslampen (ISO 10650:2015)

Médecine bucco-dentaire - Activateurs électriques de polymérisation (ISO 10650:2015)

Ta slovenski standard je istoveten z: EN ISO 10650:2015

ICS:

11.060.20 Zobotehnična oprema Dental equipment

SIST EN ISO 10650:2015

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10650:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>

EUROPEAN STANDARD

EN ISO 10650

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2015

ICS 11.060.20

Supersedes EN ISO 10650-1:2005, EN ISO 10650-2:2007

English Version

Dentistry - Powered polymerization activators (ISO 10650:2015)

Médecine bucco-dentaire - Activeurs électriques de polymérisation (ISO 10650:2015)

Zahnheilkunde - Polymerisationslampen (ISO 10650:2015)

This European Standard was approved by CEN on 22 August 2015.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10650:2015](https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015)
<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>

European foreword

This document (EN ISO 10650:2015) 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 March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 10650-1:2005, EN ISO 10650-2:2007.

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

STANDARD PREVIEW

(standards.iteh.ai)

Endorsement notice

The text of ISO 10650:2015 has been approved by CEN as EN ISO 10650:2015 without any modification.

SIST EN ISO 10650:2015
<https://standards.iteh.ai/catalog/standards/sist/9554ab53-1eb5-483a-ac43-0f40da88092a/sist-en-iso-10650-2015>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10650:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>

INTERNATIONAL
STANDARD

ISO
10650

First edition
2015-09-15

**Dentistry — Powered polymerization
activators**

Médecine bucco-dentaire — Activateurs électriques de polymérisation

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10650:2015](https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015)

<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>



Reference number
ISO 10650:2015(E)

© ISO 2015

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 10650:2015

<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	2
5 Requirements	2
5.1 General.....	2
5.1.1 Design.....	2
5.1.2 Connection.....	2
5.1.3 Operating controls.....	2
5.1.4 Cleaning, disinfection, and sterilization.....	2
5.1.5 Excessive temperatures.....	2
5.2 Radiant exitance.....	3
5.2.1 Radiant exitance in the 385 nm to 515 nm (blue) wavelength region.....	3
5.2.2 Radiant exitance in the 200 nm to 385 nm wavelength region.....	3
5.2.3 Radiant exitance in the wavelength region above 515 nm.....	3
5.3 Electrical safety requirements.....	3
6 Sampling	3
7 Test methods	3
7.1 General.....	3
7.1.1 General provisions for tests.....	3
7.1.2 Atmospheric conditions.....	4
7.2 Radiant exitance.....	4
7.2.1 Apparatus.....	4
7.2.2 Procedures.....	6
7.2.3 Treatment of results.....	9
8 Information to be supplied by the manufacturer	11
8.1 Instructions for use.....	11
8.2 Technical description.....	12
9 Marking	12
10 Packaging	12
Bibliography	14

ISO 10650:2015(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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*.

This first edition of ISO 10650 cancels and replaces ISO 10650-1:2004 and ISO 10650-2:2007, which have been technically revised with the following changes:

- limitation of blue wavelength region to: 200 nm to 385 nm;
- test procedure 7.2 radiant exitance was adopted to LED-diode lamps;
- information to be supplied by the manufacturer and marking requirements were updated.

Introduction

This International Standard specifies requirements and test methods in the 200 nm to 385 nm wavelength region and the wavelength region above 515 nm for powered polymerization activators. No minimum requirement value is given for the 385 nm to 515 nm wavelength region. The value in the 385 nm to 515 nm wavelength region is no less than the manufacturer's stated value.

This International Standard uses wavelength regions based on cut-off filters. Thus, the 200 nm to 385 nm region includes not only the ultraviolet region but also the near blue wavelength region of around 380 nm. The 385 nm to 515 nm region is taken as the region for powered polymerization activation. The region above 515 nm reaches approximately 1100 nm, which is the detection limit of the detector specified in this International Standard. The test methods described do not give absolute values nor do they reflect energy emitted as black body radiation. The measured values are not true radiant exitance but are values obtained using the methods described in this International Standard. Nevertheless, the values obtained using these test methods are used in conjunction with this International Standard.

This International Standard refers to IEC 60601-1, the basic International Standard on safety of medical electrical equipment, wherever relevant, by stating the respective clause numbers of IEC 60601-1.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 10650:2015](https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015)

<https://standards.iteh.ai/catalog/standards/sist/9354ab53-1eb5-483a-ae43-0f40da88092a/sist-en-iso-10650-2015>