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Dentistry — Powered polymerization activators —

Part 1: Quartz tungsten halogen lamps

Art dentaire — Activateurs électriques de polymérisation —

Partie 1: Lampes halogènes au tungstène à quartz

Reference number
ISO 10650-1:2004(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10650-1 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*.

This first edition of ISO 10650-1 together with ISO 10650-2 cancels and replaces ISO/TS 10650:1999, which has been technically revised.

ISO 10650 consists of the following parts, under the general title *Dentistry — Powered polymerization activators*:

— *Part 1: Quartz tungsten-halogen lamps*

The following part is under preparation:

— *Part 2: Light-emitting diode (LED) lamps*

Introduction

This International Standard specifies requirements and test methods for powered polymerization activators in the 190 nm to 385 nm wavelength region and the wavelength region above 515 nm. No requirement is given for the 400 nm to 515 nm wavelength region. This International Standard uses wavelength regions based on cut-off filters. Thus, the 190 nm to 385 nm region includes not only the ultraviolet region but also the near-blue wavelength region of around 380 nm. The 400 nm to 515 nm region is taken as the blue region for powered polymerization activation. The region above 515 nm reaches approximately 1 100 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 60601-1:1988, the basic International Standard on safety of medical electrical equipment, wherever relevant, by stating the respective clause numbers of IEC 60601-1:1988.