INTERNATIONAL STANDARD

ISO 6876

Second edition
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Dental root canal sealing materials

Produits dentaires pour le scellement des canaux radiculaires

Reference number
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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 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 6876 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 1, *Filling and restorative materials*.

This second edition cancels and replaces the first edition (ISO 6876:1986), which has been technically revised.

Introduction

This International Standard was first published in 1986 (ISO 6876:1986). There were significant differences between ISO 6876 and the United States specification ANSI/ADA Specification No 57 (1983). In addition test houses had reported difficulties with some of the test procedures in the International Standard. In an attempt to harmonize the ISO and ANSI/ADA Standards and improve the test procedures, a planned programme of revision was commenced in 1991. The changes in this second edition are as follows:

The classification has been removed.

Non-setting materials are no longer covered by this International Standard.

The test procedures for flow, working time and setting time have been altered.

A new test to determine dimensional change following setting has been added.

For dental root canal sealers which require moisture to facilitate setting, a new test procedure to simulate the setting mode of the sealers in the root canal system has been included.

Dental root canal sealing materials

1 Scope

This International Standard specifies requirements and test methods for root canal sealing materials which set with and without the assistance of moisture and are used for permanent obturation of the root canal, with or without the aid of obturating points. It is applicable only to sealers intended for orthograde use, i.e. a root filling placed from the coronal aspect of a tooth.

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 3665:1996, *Photography — Intra-oral dental radiographic film — Specification*.

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

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1
mixing time
that part of the working time specified or required in order to obtain a satisfactory mix of the components

3.2
working time
period of time, measured from the start of mixing, during which it is possible to manipulate the dental sealer without an adverse effect on its properties

3.3
setting time
period of time measured from the end of mixing until the sealer has set according to the criteria and conditions described in 7.4

NOTE For the purposes of this International Standard, the setting time is determined from the end of mixing because of the wide variation in mixing times.

4 Requirements

4.1 Components

The components of the sealer shall be visually free from extraneous matter when tested according to 7.1.