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BSI Standards Publication

Dentistry - Diamond rotary instruments

Part 1: General requirements

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National foreword

This British Standard is the UK implementation of EN ISO 7711-1:2021. It is identical to ISO 7711-1:2021. It supersedes BS EN ISO 7711-1:1998+A1:2009, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CH/106/4, Dental Instruments and Equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EN ISO 7711-1:1998/A1:2009

English Version

Dentistry - Diamond rotary instruments - Part 1: General requirements (ISO 7711-1:2021)

Médecine bucco-dentaire - Instruments rotatifs
diamantés - Partie 1: Exigences générales (ISO 7711-
1:2021)

Zahnheilkunde - Rotierende Diamantinstrumente - Teil
1: Allgemeine Anforderungen (ISO 7711-1:2021)

This European Standard was approved by CEN on 18 October 2021.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 7711-1:2021) 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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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

This document supersedes EN ISO 7711-1:1998, EN ISO 7711-3:2004 and EN ISO 7711-1:1998/A1:2009.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 7711-1:2021 has been approved by CEN as EN ISO 7711-1:2021 without any modification.

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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.

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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition of ISO 7711-1 cancels and replaces ISO 7711-1:1997 and ISO 7711-3:2004, which have been technically revised. It also incorporates the Amendment ISO 7711-1:1997/Amd.1:2009.

The main changes compared to the previous edition are as follows:

- the entire content of ISO 7711-3 has been included;
- definitions have been added to [Clause 3](#);
- blank materials have been added in [5.1](#);
- tables for force values were removed;
- figures and tables describing bur shapes and dimensions have been removed.

A list of all parts in the ISO 7711 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Dentistry — Diamond rotary instruments —

Part 1: General requirements

1 Scope

This document specifies the general requirements and test methods for diamond rotary instruments used in dentistry, including designation, colour code and grit sizes and a quality control for these instruments.

It applies to all types of diamond rotary instruments independent of type and shape with exception to diamond discs, which are specified in ISO 7711-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1797:2017, *Dentistry — Shanks for rotary and oscillating instruments*

ISO 1942, *Dentistry — Vocabulary*

ISO 2157, *Dentistry — Nominal diameters and designation code numbers for rotary instruments*

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

ISO 8325:2004, *Dentistry — Test methods for rotary instruments*

ISO 6106, *Abrasive products — Checking the grain size of superabrasives*

ISO 14457, *Dentistry — Handpieces and motors*

ISO 21850-1, *Dentistry — Materials for dental instruments — Part 1: Stainless steel*

3 Terms and definitions

For the purposes of this document, the following terms and definitions given in ISO 1942 and ISO 14457 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>