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Dentistry — Number coding system for rotary instruments —

Part 4: Specific characteristics of diamond instruments

Art dentaire — Système de codification numérique pour instruments rotatifs —

Partie 4: Caractéristiques spécifiques des instruments diamantés

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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 6360-4 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

ISO 6360 consists of the following parts, under the general title *Dentistry — Number coding system for rotary instruments*:

— *Part 1: General characteristics*

— *Part 2: Shapes*

— *Part 3: Specific characteristics of burs and cutters*

— *Part 4: Specific characteristics of diamond instruments*

— *Part 6: Specific characteristics of abrasive instruments*

— *Part 7: Specific characteristics of mandrels and special instruments*

Introduction

This part of ISO 6360 is one of a series of International Standards relating to dental rotary instruments. A wide variety of dental rotary instruments, including root-canal instruments, is manufactured throughout the world for use by the dental profession.

ISO 6360 provides a general number coding system for all types of dental rotary instruments, including accessories used in connection with these rotary instruments.

The benefits of this system for dentistry in its entirety will only be derived if the system is widely adopted; manufacturers of dental instruments, as well as the dental trade, are therefore requested to refer to ISO 6360 in their catalogues.

This part of ISO 6360 was prepared in response to a need by the dental trade and industry and the dental profession for a universal system of classification and designation for these instruments. It establishes a comprehensive number coding system suitable for all dental rotary instruments by use of a 15-digit code number identifying general and specific characteristics of instruments or groups of instruments.

The first group of three digits identifies the materials used for the working part of instruments.

The second group of three digits identifies the shanks and handles used for instruments and the overall lengths of instruments.

The third group of three digits identifies the shapes of instruments.

The fourth group of three digits identifies the specific characteristics for groups of instruments.

The fifth group of three digits identifies the nominal diameter of the working part of the instruments.

A sixth group of three digits may optionally be used for diamond instruments to identify further specific characteristics (see ISO 6360-4).

The code numbers are generic code numbers. They do not provide exact product information. This information is given in the respective product standards for dental rotary instruments.

For the application of the system and for the correct allocation of numbers or their identification, it is intended that the user consult ISO 6360-1 and ISO 6360-2 for general information, and in addition one of the following subsequent parts (ISO 6360-3 to ISO 6360-7) for further information on specific characteristics of instruments or groups of instruments.

For the allocation of new numbers complying with ISO 6360, an application supported by a description and a drawing should be sent to the secretariat of ISO/TC 106/SC 4, *Dental instruments*, which keeps updated records of all numbers currently allocated. An international group of experts will then decide on an appropriate identification number for the instrument in question, including its specific characteristics. The Secretary will inform the applicant, in due course, of the result and assist him in using the number correctly. The Secretariat of ISO/TC 106/SC 4 can be contacted at:

DIN NADENT
Turnplatz 2
75172 Pforzheim
Germany

Dentistry — Number coding system for rotary instruments —

Part 4: Specific characteristics of diamond instruments

1 Scope

This part of ISO 6360 specifies the code numbers for specific characteristics of rotary diamond instruments and diamond-coated discs for use in dentistry. This three-digit number forms the fourth group of three digits in the 15-digit overall number, the principles of which are explained in ISO 6360-1 and ISO 6360-2.

This part of ISO 6360 also gives a three-digit number which in addition to the 15-digit code number may be used to provide additional information for diamond instruments and diamond-coated discs, at the discretion of the manufacturer.

2 Normative references

The following referenced documents are indispensable for the application 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 2157, *Dental rotary instruments — Nominal diameters and designation code number*

ISO 6360-1, *Dentistry — Number coding system for rotary instruments — Part 1: General characteristics*

ISO 6360-2, *Dentistry — Number coding system for rotary instruments — Part 2: Shapes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6360-1 apply.

4 Code numbers for specific characteristics

4.1 General

The general characteristics of the number coding system for rotary instruments are described in ISO 6360-1. The first and second groups of three digits of the 15-digit overall number are specified in ISO 6360-1.

The shapes of rotary instruments and their respective numbers are specified in ISO 6360-2 as the third group.

The fourth group of three digits identifies specific characteristics for groups of instruments.

The specific characteristics of diamond instruments refer to the length of the working part or, for discs, to the thickness of the disc.

The information on the length of the working part of diamond instruments is given as a three-digit number at locations 10, 11 and 12 of the overall number.

The information on the thickness of the disc is given as a three-digit number at locations 10, 11 and 12 of the overall number.

In locations 16, 17 and 18, additional information from the manufacturer about the angle of the working part or the width of the diamond coating for discs may be given. The use of these three digits is optional.

NOTE The use of the three digits in locations 16, 17 and 18 is provided tentatively for a period of five years after publication of this part of ISO 6360. At this time it will be decided whether the numbers for the digits 16, 17 and 18 shall become full numbers of this number coding system, shall rest as optional numbers, or shall be deleted.

4.2 Length of the working part or thickness of the disc

The length of the the working part of diamond instruments shall be given in the locations 10, 11 and 12.

The length of the the working part is described in increments of 0,1 mm.

For diamond-coated discs, the item corresponding to the length of the working part is the thickness of the disc. The thickness of the disc is described in increments of 0,01 mm.

EXAMPLE 1 A diamond instrument with a working part of length 4,0 mm is identified by the code number 040 in locations 10 to 12.

EXAMPLE 2 A diamond-coated disc of thickness 0,06 mm is identified by the code number 006 in locations 10 to 12.

EXAMPLE 3 A diamond-coated disc of thickness 2,0 mm is identified by the code number 200 in locations 10 to 12.

4.3 Nominal diameter of the working part

The nominal diameter (nominal size) of the working part of diamond instruments shall be given in the locations 13 to 15 and in accordance with ISO 2157.

EXAMPLE 1 A diamond instrument with a working part of diameter (nominal size) 1,2 mm is identified by the code number 012 in locations 13 to 15.

EXAMPLE 2 A diamond-coated disc with an external diameter of 22,0 mm is identified by the code number 220 in locations 13 to 15.

4.4 Optional information for diamond instruments and diamond-coated discs

4.4.1 Angle of tapered diamond instruments

For diamond instruments with tapered working parts, the angle of the working part is given in locations 16, 17 and 18. This angle of the tapered working part is called the included angle, and is measured as specified in Figure 1.

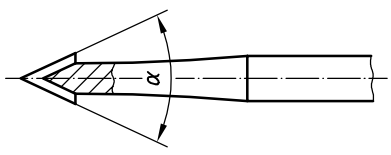

Figure 1 — Illustration of included angle α for tapered diamond instruments

The angle of the tapered working part is described in increments of 0,1°.

If this information is not used, there is no need to use the locations 16, 17 and 18.

EXAMPLE A tapered instrument with 2,5° included angle is identified by the code number 025 in locations 16, 17 and 18.

4.4.2 Width of diamond-coated discs

For diamond-coated discs, the width of the diamond coating of the working part is given in locations 16, 17 and 18. This width of the diamond coating is the distance between the external coated diameter and the internal non-coated diameter, and is measured as specified in Figure 2.

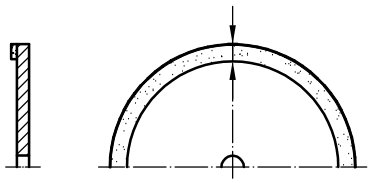

Figure 2 — Illustration of width for diamond-coated discs

For discs, the width of the diamond coating of the working part is described in increments of 0,1 mm.

If this information is not used, there is no need to use the locations 16, 17 and 18.

EXAMPLE A diamond-coated disc with an external diameter of 22,0 mm (nominal size) and an internal diameter of the non-coated area of 19,0 mm is identified by the code number 030 in locations 16, 17 and 18.

ICS 11.060.25

Price based on 3 pages