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Dentistry — Number coding system for rotary instruments —

Part 6:

Specific characteristics of abrasive instruments

Art dentaire — Système de codification numérique pour instruments rotatifs —

Partie 6: Caractéristiques spécifiques des instruments abrasifs



Reference number ISO 6360-6:2004(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 6360-6 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: Shape and specific characteristics
- 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

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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 <u>first</u> group of three digits identifies the materials used for the working part of instruments.

The <u>second</u> 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 <u>fifth</u> group of three digits identifies the nominal diameter of the working part of the instruments.

A <u>sixth</u> 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 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 6:

Specific characteristics of abrasive instruments

1 Scope

This part of ISO 6360 specifies the code numbers for specific characteristics of rotary abrasive instruments used 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 is also applicable to dental polishers which are considered as abrasive instruments.

NOTE In addition to terms for rotary instruments and accessories used in two of the three official ISO languages (English, French and Russian), this part of ISO 6360 gives the equivalent terms in the German language; these are published under the responsibility of the member body for Germany (DIN). However, only the terms given in the official languages can be considered as ISO terms.

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 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

ISO 7711-3, Dentistry — Diamond rotary instruments — Part 3: Grit sizes, designation and colour code

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 abrasive instruments refer to the fineness of the grit size of the abrasive material (designation of grit sizes) and the hardness of the binding of the abrasive material. They are identified by a three-digit number, which appears in the locations 10, 11 and 12 of the overall 15-digit number.

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For diamond rotary instruments, the designation of the grit sizes shall be used as given in ISO 7711-3, which also specifies the corresponding grain size distribution and a colour code.

4.2 Grouping of abrasive instruments

The grouping of abrasive instruments is based on the following characteristics:

- a) fineness of grit size of the abrasive material: ultra-fine, extra-fine, fine, medium, coarse and very coarse; and
- for each group of fineness of grit size, a further subdivision is made according to the hardness of the binding:
- b) hardness of binding of the abrasive material: very soft, soft, medium, hard, very hard and extra-hard.

5 Grit sizes

5.1 Grit size ultra-fine

Table 1 gives the code numbers of abrasive instruments with grit size ultra-fine. These three-digit numbers range from 491 to 496.

Table 1 — Grit size ultra-fine

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	491
	de: sehr weich	
	en: soft	
	fr: doux	492
	de: weich	
	en: medium	
en: ultra-fine	fr: moyen	493
fr: ultra fin	de: mittel	
II. UIII a IIII	en: hard	
de: ultra fein	fr: dur	494
	de: hart	
	en: very hard	
	fr: très dur	495
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	496
	de: extra hart	

5.2 Grit size extra-fine

Table 2 gives the code numbers of abrasive instruments with grit size extra-fine. These three-digit numbers range from 501 to 506.

Table 2 — Grit size extra-fine

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	501
	de: sehr weich	
	en: soft	
	fr: doux	502
	de: weich	
	en: medium	
en: extra-fine	fr: moyen	503
for suction fine	de: mittel	
fr: extra fin	en: hard	
de: extra fein	fr: dur	504
	de: hart	
	en: very hard	
	fr: très dur	505
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	506
	de: extra hart	

5.3 Grit size fine

Table 3 gives the code numbers of abrasive instruments with grit size fine. These three-digit numbers range from 511 to 516.

Table 3 — Grit size fine

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	511
	de: sehr weich	
	en: soft	
	fr: doux	512
	de: weich	
	en: medium	
en: fine	fr: moyen	513
fr: fin	de: mittel	
11.1111	en: hard	
de: fein	fr: dur	514
	de: hart	
	en: very hard	
	fr: très dur	515
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	516
	de: extra hart	

5.4 Grit size medium

Table 4 gives the code numbers of abrasive instruments with grit size medium. These three-digit numbers range from 521 to 526.

Table 4 — Grit size medium

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	521
	de: sehr weich	
	en: soft	
	fr: doux	522
	de: weich	
	en: medium	
en: medium	fr: moyen	523
fr: movon	de: mittel	
fr: moyen	en: hard	
de: mittel	fr: dur	524
	de: hart	
	en: very hard	
	fr: très dur	525
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	526
	de: extra hart	

5.5 Grit size coarse

Table 5 gives the code numbers of abrasive instruments with grit size coarse. These three-digit numbers range from 531 to 536.

Table 5 — Grit size coarse

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	531
	de: sehr weich	
	en: soft	
	fr: doux	532
	de: weich	
	en: medium	
en: coarse	fr: moyen	533
fr: grander	de: mittel	
fr: grossier	en: hard	
de: grob	fr: dur	534
	de: hart	
	en: very hard	
	fr: très dur	535
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	536
	de: extra hart	

5.6 Grit size very coarse

Table 6 gives the code numbers of abrasive instruments with grit size very coarse. These three-digit numbers range from 541 to 546.

Table 6 — Grit size very coarse

Designation of grit size	Hardness of binding	Code number
	en: very soft	
	fr: très doux	541
	de: sehr weich	
	en: soft	
	fr: doux	542
	de: weich	
	en: medium	
en: very coarse	fr: moyen	543
fr: tròn grandiar	de: mittel	
fr: très grossier	en: hard	
de: sehr grob	fr: dur	544
	de: hart	
	en: very hard	
	fr: très dur	545
	de: sehr hart	
	en: extra-hard	
	fr: extra dur	546
	de: extra hart	

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