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**Superabrasives — Limit deviations and  
run-out tolerances for grinding wheels  
with diamond or cubic boron nitride**

*Superabrasifs — Écartes limites et tolérances de battement pour  
les meules à base de diamant et de nitrure de bore*



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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 22917 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

# Superabrasives — Limit deviations and run-out tolerances for grinding wheels with diamond or cubic boron nitride

## 1 Scope

This International Standard applies to all rotating grinding tools with diamond or cubic boron nitride with metal, vitrified or resinoid bonded cores, and circular bores for mounting the grinding tool on a clamping flange as well as to grinding points with cylindrical spindle for mounting in collets. It contains the significant limit deviations and run-out tolerances of these grinding tools.

## 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 286-1:1988, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits*

ISO 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts*

## 3 Terms and definitions

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

For further terms and definitions, see also ISO 286-1. It should be noted, however, that some of the terms are defined in a more restricted sense than in common usage.

### 3.1 size

number expressing, in a particular unit, the numerical value of a linear dimension

#### 3.1.1 basic size nominal size

size from which the limits of size are derived by the application of the upper and lower deviations

#### 3.1.2 actual size

size of a feature, obtained by measurements

#### 3.1.3 limits of size

two extreme permissible sizes of a feature, between which the actual size should lie, the limits of size being included