
**Superabrasive products — Rotating
grinding tools with diamond or cubic
boron nitride — General survey,
designation and multilingual
nomenclature**

*Produits superabrasifs — Meules rotatives à base de diamant ou de
nitrure de bore — Généralités, désignation et nomenclature multilingue*

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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 6104 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

This second edition cancels and replaces the first edition (ISO 6104:1979), which been technically revised.

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Superabrasive products — Rotating grinding tools with diamond or cubic boron nitride — General survey, designation and multilingual nomenclature

1 Scope

This International Standard gives a general survey, and specifies the designation, of rotating grinding tools with diamond or cubic boron nitride superabrasive section. It also gives a multilingual nomenclature concerning these tools.

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

2 Terms and dimensional abbreviations

See Annex A.

3 Designation

3.1 Structure of designation

3.1.1 Elements

The structure of designation comprises three symbols intended only for the designation of the rotating grinding wheel and cutting-off wheels (saws). The three symbols shall be included in any designation. A supplementary symbol may be used if necessary.

The meaning of these symbols is the following:

- digit or characteristic number for the basic core shape on which the superabrasive section is mounted (see 3.1.2);
- one- or two-letter symbols for the shape or superabrasive section (see 3.1.3);
- digit or characteristic number for location of the superabrasive section on the core (see 3.1.4);
- possibly, one or several letter symbols for the core modifications (see 3.1.5).

3.1.2 Basic core shape

Basic core shapes are defined by symbols irrespective of their location of the superabrasive section on the core and the end use of the rotating grinding tools. The presence of a recess in the core to accommodate the superabrasive section does not affect the determination of the symbol. For basic core shapes, see Table 1.

Table 1 — Basic core shapes

Core shape	Designation	Illustration	Core shape	Designation	Illustration
1	Straight peripheral wheel		10	Concave double-angle cup wheel	
2	Face or rim wheel		11	Taper cup wheel	
3	Single hubbed wheel		12	Taper cup wheel	
4	Wheel tapered one side		13	Taper cup wheel	
6	Straight cup wheel		14	Double hubbed wheel	
9	Double cup wheel				—

3.1.3 Shape of superabrasive section

Superabrasive section shapes and their codes are shown and indicated in Table 2.

- Code is irrespective of the location of the superabrasive section.
- The superabrasive section can be at any position relative to the core.
- The bold black lines in the drawings indicate the grinding face.