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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 2076-2021

Indexable inserts for cutting tools - Designation

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document replaces GB/T 2076-2007 "Regulations for the Model Representation of Indexable Inserts for Cutting Tools". This document and GB/T 2076-

Compared with.2007, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Some normative reference documents have been changed to be consistent with ISO 1832.2017 (see Chapter 2, Chapter 2 of the.2007 edition);

b) Added terms and definitions (see Chapter 3);

c) Deleted the unequal-sided unequal-angled hexagon "F" (see Table 1 and Table 4 of the.2007 edition);

d) The basic size d of the inscribed circle of the blade shape V is changed to the allowable deviation value of m for the "12.7" blade (see Table 5,.2007 edition

table 5);

e) The blades with the basic dimensions d of "15.875" and "19.05" of the inscribed circle of the blade shape V are deleted (see Table 5 of the.2007 edition);

f) The letter code of the double chamfered blade has been changed from "Q" to "K" (see Table 10, Table 10 of the.2007 edition);

g) Added full cutting edge letter code "F" (see 7.4);

h) Added Appendix C (see Appendix C).

The translation method used in this document is equivalent to ISO 1832.2017 "Regulations

for the Model Representation of Indexable Inserts for Cutting Tools".

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 2075-2007 The classification and application of hard cutting materials for cutting processing and the classification code of the application group

(ISO 513.2004, IDT);

---GB/T 12204-2010 Basic terminology of metal cutting (ISO 3002-1.1982; ISO 3002-3.1984; ISO 3002-4.

1984, MOD);

---GB/T 21951-2008 insert or overall cubic boron nitride blade size (ISO 16462.2004, MOD);

---GB/T 21952-2008 insert polycrystalline diamond blade size (ISO 16463.2004, MOD).

1 Scope

This document specifies the rules for the model representation of indexable inserts of cemented carbide or other cutting materials for cutting tools.

This document is applicable to indexable inserts of cemented carbide or other cutting materials for cutting tools, as well as to inserts with cubic boron nitride and inserts.

Polycrystalline diamond blade.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

ISO 513 The classification and use of hard cutting materials for cutting processing and the classification code of the use group (Classificationand

applicationofhardcuttingmaterialsformetalremovalwithdefinedcuttingedge-Designationofthe

maingroupsandgroupsofapplication)

ISO 3002-1 Basic Parameters of Cutting and Grinding Processing Part 1.General Terminology for Geometric Parameters of the Working Part of Cutting Tools,

Reference coordinate system, tool and working angle, chip breaker

(Basicquantitiesincuttingandgrinding-Part 1.Geometryof

theactivepartofcuttingtools-Generalterms,referencesystems,toolandworkingangles,chip

breakers)

ISO 16462 insert or integral cubic boron nitride insert size and type (Cubicboronnitrideinserts, tippedorsolid-

Dimensions,types)

ISO 16463 inserts polycrystalline diamond insert size and type (Polycristaline diamond inserts, tipped-Dimensions,

types)

3 Terms and definitions

There are no terms and definitions that need to be defined in this document.

4 Model representation rules

The indexable insert model indicates the rule with nine codes to characterize the size and other characteristics of the insert. Code (1)~(7) is required, code

(8) and (9) are added when needed.

According to the provisions of ISO 16462 and ISO 16463, the model designation rules of insert blades use twelve codes to characterize the size of the blade.

And other characteristics. Code (1)~(7) and

Open, see example 2.

In addition to the standard code, manufacturers can use supplementary codes to indicate one or two blade characteristics to better describe their products (if not

Same slot type). The code is separated from the standard code by "-" and cannot contain the characters used in (8), (9), and (10).

It is recommended not to add or expand the representation rules specified in this document. If you really need to add or expand the code that is not provided in this rule

It is best not to increase the number of digits, but to increase the symbol in the corresponding digits to maintain consistency with this document.