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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16457-1996

Replacing GB/T 16457.1-2009; GB/T 16457.2-2009

**Blanks of diamond circular saw blade - Part 1: For welded saw
blades**

(English Translation)

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Foreword

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

This document is Part 1 of GB/T 16457 "Diamond Circular Saw Blade Base". GB/T 16457 has released the following parts.

---Part 1: For welding saw blades;

---Part 2: For sintered saw blades.

This document partially replaces GB/T 16457.1-2009 "Superhard material saw blade base dimensions - Part 1: Used in buildings and civil engineering Mechanical cutting of engineering materials" and GB/T 16457.2-2009 "Saw blade base dimensions for super-hard materials - Part 2: Used in buildings and civil engineering Hand-held cutting of engineering materials". This document is based on GB/T 16457.1-2009 and integrates GB/T 16457.2-2009 and welding Contents related to the saw blade base. Compared with GB/T 16457.1-2009, in addition to structural adjustments and editorial changes, the main technical changes as follows.

- a) Changed the scope (see Chapter 1, Chapter 1 of the 2009 edition);
- b) The code name and mark have been changed (see Chapter 4, Chapter 2.1, 2.2, and Chapter 3 of the 2009 edition);
- c) The dimensions and requirements have been changed (see 5.4, Appendix A, 2.3 of the 2009 edition);
- d) Added requirements for safety, appearance, surface roughness, geometric tolerance, and tension (see 5.1, 5.2, 5.3, 5.5, and 5.6);
- e) Added requirements for test methods, inspection rules, marking, packaging, transportation and storage (see Chapter 6 ~ Chapter 8).

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Introduction

Due to different manufacturing processes, diamond circular saw blades are currently divided into two categories. welded saw blades and sintered saw blades. These two types of products are very Technical requirements vary widely. In order to scientifically and reasonably standardize the technical content of diamond circular saw blade substrates, and

in line with GB/T 11270.1 "Diamond circular saw blades for superhard abrasive products - Part 1: Welding saw blades" and GB/T 11270.2 "Diamond circular saw blades for superabrasive products" in line with the "Stone Circular Saw Blades Part 2: Sintered Saw Blades", GB/T 16457 "Diamond Circular Saw Blade Base" is intended to consist of the following two parts.

---Part 1: For welding saw blades. The purpose is to establish technical specifications for the substrate used in welding process diamond circular saw blades.

---Part 2: For sintered saw blades. The purpose is to establish the technical specifications for the matrix used in sintering process diamond circular saw blades.

Diamond circular saw blade base Part 1: Saw blades for welding

1 Scope

This document specifies the codes and markings, technical requirements, test methods, inspection rules and signs, packaging Loading, transportation and storage.

This document is applicable to the substrate for welding diamond circular saw blades.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 11270.1-2021 Superabrasive products diamond circular saw blades Part 1: Welding saw blades
GB/T 39169 Diamond circular saw blade base mounting and fixing holes for construction and civil engineering
GB/T 43134 Safety requirements for superabrasive products

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4.1 Shape code

The basic shape code of the substrate for welding diamond circular saw blades (hereinafter referred to as the substrate) is 1, and its modified shape and code should comply with the provisions of 4.1.3 in GB/T 11270.1-2021.

4.2 Applicable welding process codes

The sawtooth welding processes and codes applicable to the base body are shown in Table 1.

Table 1 Applicable welding process codes

Applicable welding process code Laser welding LW High frequency induction welding HF

4.3 Dimension code

The base size code is shown in Table 2 and Figure 1.