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

GB/T 11270-1989

**Super abrasive products - Diamond circular saw blade - Part 1:
Welded saw blades
(English Translation)**

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Table of Contents

Foreword	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Code and marking	
4.1 Shape code	
4.2 Size code	
4.3 Abrasive particle size number	
4.4 Concentration code	
4.5 Bond code	
4.6 Welding procedure code	
4.7 Use code	
4.8 Product marking	
5 Basic size of base body and serration	
5.1 Base	
5.2 Sawtooth	
6 Technical requirements	
6.1 General requirements	
6.2 Appearance	
6.3 Limit deviation of basic size of sawtooth	
6.4 Shape and position tolerance	
6.5 Safety requirements	
7 Test method	
7.1 General requirements	
7.2 Appearance	
7.3 Basic dimensions of sawtooth	
7.4 Geometric tolerance	
7.5 Safety requirements	
8 Inspection rules	
9 Sign	
10 Packaging, transportation and storage	

10.1 Packaging

10.2 Transportation

10.3 Storage

Appendix A (Normative) Technical Requirements for Welding Diamond Circular Saw Blade Base

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 is the first part of GB/T 11270 "Diamond Circular Saw Blade for Super Abrasive Products". GB/T 11270 has been released to the next part.

---Part 1: Welding saw blades;

---Part 2: Sintered saw blade.

This document replaces GB/T 11270.1-2002 "Superhard Abrasive Products Diamond Circular Saw Blade Part 1: Welded Saw Blade", and Compared with GB/T 11270.1-2002, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The code for the shape of the sawtooth section and the code for the modification of the matrix have been changed (see 4.1.1, 4.1.3, 3.5.1, 3.5.2 of the 2012 edition);
- b) The code of the serrated surface shape has been added (see 4.1.2);
- c) The shape code of the saw blade is changed (see 4.1.4, 3.5.3 of the 2002 edition)
- d) Abrasive code is deleted (see 3.1 in 2002 edition);
- e) Changed the abrasive particle size number (see 4.3, 3.2 in the 2002 edition);
- f) The concentration code is changed (see 4.4, 3.3 in the 2002 edition);
- g) The code of the welding process has been added (see 4.6);
- h) Changed the use code (see 4.7, 4.1 in the 2002 edition);
- i) Changed the product mark (see 4.8, 3.7 of the 2002 edition);
- j) The basic dimensions and technical requirements of the substrate have been changed (see 5.1, 6.1.2, Appendix A, 4.2, 5.2, and Appendix A of the 2002 edition);
- k) The basic size of the saw tooth and its limit deviation have been changed (see 5.2, 6.3, 4.2 in the 2002 edition);

- l) The quality requirements for natural diamonds have been deleted (see 5.1.3 of the 2002 edition);
- m) The appearance requirements are changed (see 6.2, 5.1.1, 5.3.1 of the 2002 edition);
- n) Changed the geometric tolerances (see 6.4, 5.3.2, 5.4 of the 2002 edition);
- o) Safety requirements such as the maximum working speed, the total depth of the saw tooth, and the tension have been added (see 6.5.1, 6.5.4, 6.5.5);
- p) The safety requirements for rotation strength and sawtooth bonding strength are changed (see 6.5.2, 6.5.3, 5.5 in the 2002 edition);
- q) Added the surface roughness test method (see 7.1.2.3);
- r) The flatness test method is changed (see 7.4.3, 6.6 in the 2002 edition);
- s) The test method of slewing strength is changed (see 7.5.1, 5.5 of the 2002 edition);
- t) The test method of sawtooth bond strength is changed (see 7.5.2, 5.5 of the 2002 edition);
- u) The test method for the total depth of the saw tooth has been added (see 7.5.3);
- v) Added tensile test method (see 7.5.4);
- w) The inspection rules have been changed (see Chapter 8, Chapter 7 of the 2002 edition);
- x) The labeling regulations have been changed (see Chapter 9, 8.1~8.3 of the 2002 edition);
- y) The packaging, transportation and storage regulations have been changed (see Chapter 10, 2002 edition of 8.4, 8.5).

Introduction

Diamond circular saw blades are currently divided into welded saw blades and sintered saw blades due to different manufacturing processes. These two types of products are in performance. There is a big difference in technical requirements. In order to scientifically and reasonably standardize and coordinate the technical content of diamond circular saw blades, GB/T 11270 "Super Hard Abrasive Products Diamond Circular Saw Blade" is planned to consist of the following two parts.

---Part 1: Welding saw blades;

---Part 2: Sintered saw blade.

Diamond circular saw blades for super-abrasive products Part 1: Welding the saw blade

1 Scope

This document specifies the codes and markings of the welded diamond circular saw blades, the basic dimensions of the substrate and the teeth, technical requirements, test methods, and inspection gauges.

Rules, signs, packaging, transportation and storage.

This document is applicable to welded diamond circular saws for cutting stone, concrete, refractory materials, asphalt, carbon, ceramics, glass and other materials.

Blade (hereinafter referred to as saw 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.

GB/T 2493 Rotation test method of grinding wheel GB/T 6406 Super-hard abrasive particle size inspection GB/T 11270.2 Diamond circular saw blades for superabrasive products-Part 2: Sintered saw blades GB/T 16457 (all parts) Superhard material saw blade base size GB/T 24181 Diamond welded saw blade base steel Overview and marking of GB/T 35479 super-hard abrasive products diamond or cubic boron nitride abrasive shapes JB/T 7989 Superabrasive synthetic diamond technical conditions

3 Terms and definitions

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

4.1.1 Shape code of sawtooth section

See Table 1 for the shape and code of the sawtooth section.