

ICS 25.100.70

CCS J43



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

GB/T 21944.1-2022

Replacing GB/T 21944.1-2008

**Special products of silicon carbide - Kiln furniture of reaction
bonded silicon carbide - Part 1: Beams**

碳化硅特种制品 反应烧结碳化硅窑具 第1部分：方梁

Issued on: March 9, 2022

Implemented on: October 1, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Product categories

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" drafted. This document is the first part of GB/T 21944 "Silicon Carbide Special Products Reaction Sintered Silicon Carbide Kiln Furniture". GB/T 21944 has The following sections were published.

2. Special-shaped beams;

4. Burner cover. This document replaces GB/T 21944.1-2008 "Silicon Carbide Special Products Reaction Sintered Silicon Carbide Kiln Furniture Part

1. Square Beam", and Compared with GB/T 21944.1-2008, in addition to structural adjustment and editorial changes, the main technical changes are as follows:

- a) Modified normative references (see Chapter 2, Chapter 2 of the.2008 edition);
- b) Changed the product code, shape diagram and dimension mark (see 4.1, 3.1 of the.2008 edition);
- c) increased the size range of wall thickness (see Table 1);
- d) Changed the product mark (see 4.2, 3.2 of the.2008 edition);
- e) The requirements for chemical composition have been changed (see Table 2, Table 2 of the.2008 edition);
- f) Added requirements for cracks (see 5.3.2);
- g) Changed the requirements for straightness tolerance (see 5.5,

1 Scope

GB/T 21944.1-2022 is the Chinese national standard on special products of silicon carbide

- kiln furniture of reaction bonded silicon carbide - part 1: beams, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 9 March 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2022. Classification: ICS 25.100.70, CCS J43. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the product classification, technical requirements, test methods, inspection rules, packaging, marking, transportation and store. This document is applicable to reaction sintered silicon carbide square beams whose service temperature is not higher than 1350°C.

2 Normative references

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

GB/T 6569 Test method for bending strength of fine ceramics

GB/T 10325 Sampling inspection rules for acceptance of shaped refractory products

GB/T 14390 Test method for high temperature bending strength of fine ceramics

GB/T 16546 General provisions for packaging, marking, transportation, storage and quality certificates of shaped refractory materials

GB/T 16555 Chemical Analysis Method of Carbon, Silicon Carbide and Nitride Refractories

GB/T 25995 Test method for density and apparent porosity of fine ceramics

3 Terms and Definitions

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

4 Product categories

4.1 Code, shape and size The code name of the reaction sintered silicon carbide square beam is RBSiC-B, and its shape and basic dimensions are shown in Figure 1 and Table 1, respectively. Figure