

ICS 73.080

CCS Q69



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

GB/T 10698-2023

Replacing GB/T 10698-1989

Expansible graphite

可膨胀石墨

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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 replaces the GB/T 10698-1989 "Expandable Graphite" standard: Compared with GB/T 10698-1989, except for structural adjustments and compilation In addition to editorial changes, the main technical changes are as follows:

- a) Changed the "scope" (see Chapter 1, Chapter 1 of the 1989 edition);
- b) Added normative reference documents GB/T 6682 (see 6:3:1:5), GB/T 8170 (see 6:2:4, 6:3:3, 6:5:4, 6:7:5), GB/T 24533 (see 6:8), GB/T 191 (see 8:1:1);
- c) Changed "Terms and Definitions" (see Chapter 3, Chapter 3 of the 1989 edition);
- d) Delete "product brand and grade" (see Chapter 4 of the 1989 edition);
- e) Added "Classification and Labeling" (see Chapter 4);
- f) Changed the "technical requirements" (see Chapter 5, Chapter 5 of the 1989 edition);
- g) Changed "Sample Preparation" (see 6:1, 6:1 of the 1989 edition);
- h) The test methods of "moisture content", "pH value", "swelling volume" and "ash content" have been changed (see 6:2, 6:3, 6:5, 6:7, 6:2, 6:4, 1989 edition) 6:5, 6:7);
- i) "Determination of particle size" is deleted (see 6:3 of the 1989 edition);
- j) Added the "sieve residue" test method (see 6:4);
- k) Added the "sulfur content" test method (see 6:6) and deleted the "volatile matter determination" test method (see 6:6 of the 1989 version);
- l) Added "fluoride ion and chloride ion" test method (see 6:8);
- m) The inspection rules have been changed (see Chapter 7, Chapter 7 of the 1989 edition);

1 Scope

GB/T 10698-2023 is the Chinese national standard on expansible graphite, in the field of mining and minerals. 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 28 December 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2024. Classification: ICS 73.080, CCS Q69. 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 classification and labeling, technical requirements, test methods, inspection rules, marking, packaging, transportation and Storage: This document applies to expandable graphite processed by intercalation with natural graphite products:

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 191 Packaging, storage and transportation pictorial mark

GB/T 3520 Graphite fineness test method

GB/T 3521-2023 Chemical analysis methods for graphite

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 8170 Numerical rounding rules and expression and determination of limit values

GB/T 24533 Graphite anode materials for lithium-ion batteries

3 Terms and definitions

The following terms and definitions apply to this document: 3:

1 Using natural graphite as raw material, it is prepared by chemical oxidation method, electrochemical method, ultrasonic oxidation method, gas phase diffusion method, molten salt method and other methods: Ink products: 3:2 expansion volumeexpansionvolume The volume of expandable graphite per unit mass expanded at a specified temperature:

Note: The unit is milliliters per gram (mL/g):

4 Classification and tagging

1 Classification Expandable graphite is divided into two categories: high-sulfur expandable graphite and low-sulfur expandable graphite according to the sulfur content after expansion: After expansion of high sulfur expandable graphite If the sulfur content (mass fraction) is greater than or equal to 0.120%, the code is KG: The sulfur content (mass fraction) of low-sulfur expandable graphite after expansion is less than 0.120%, codenamed KD: 4:

2 Marking The expandable graphite mark consists of the product name, this document number, and product code: