

ICS 71.120
CCS G94



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

GB/T 13465.2-2014

Replacing GB/T 13465.2-2002

**Test method of impermeable graphite materials-Part 2: Flexure
strength**

不透性石墨材料试验方法 第2部分：抗弯强度

Issued on: September 3, 2014

Implemented on: March 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Instruments and equipment
- 5 Sample
- 6 Test device

Foreword

GB/T 13465 "impervious graphite material testing method" is divided into 10 parts.

--- Part 1. General Mechanical tests;

--- Part 2. flexural strength;

--- Part 3. Compressive strength;

--- Part 4. the impact strength;

--- Part 5. phenolic adhesive shrinkage;

--- Part 6. Hydraulic Blasting graphite tube;

--- Part 7. weight gain and fill porosity;

--- Part 8. Adhesive shear strength;

--- Part 9. Adhesive tensile strength;

--- Part 10. tensile strength. This part of GB/T 13465 Part 2. This section drafted in accordance with GB/T 1.1-2009 given rules. This Part replaces GB/T 13465.2-2002 "impervious graphite material bending strength test method", and GB/T 13465.2-2002 In comparison, the main technical changes are as follows:

--- Increasing the size ($\Phi 35\text{mm} \pm 0.1\text{mm}$) $\times$ ($200\text{mm} \pm 0.1\text{mm}$) impervious graphite bulk bending specimens. This part is proposed by the China Petroleum and Chemical Industry Association. This part of the National Non-metallic chemical equipment Standardization Technical Committee (SAC/TC162) centralized. This section is drafted. Tianhua Institute of Chemical Machinery and Automation Ltd., Nantong Yangtze Graphite Equipment Co., South Graphite-dawn Equipment Co., Ltd., Nantong Jingtong Graphite Equipment Co., Ltd., Nantong planet graphite Equipment Co., Ltd., Jiangsu Fu Hua Environmental Engineering Cheng Equipment Co., Taian Shengtong Chemical Equipment Co., Ltd. The main drafters of

this section. Zhou Jie, Hou Yibing, Chen Honglin, Jiang Jinfeng, Chen Hanming, Zhangjin Yao, Chen Fuhua, Zhang Hongmei. This part of the standard replaces the previous editions are.

--- GB/T 13465.2-1992, GB/T 13465.2-2002. Impermeable graphite materials - Test methods Part 2. flexural strength

1 Scope

GB/T 13465.2-2014 is the Chinese national standard on test method of impermeable graphite materials-part 2: flexure strength, in the field of chemical technology. 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 3 September 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 March 2015. Classification: ICS 71.120, CCS G94. 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 section GB/T 13465 specifies the test apparatus measured impervious graphite material used in the flexural strength, samples, test procedures and Results calculated. This section applies to impervious graphite material flexural strength measurements.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 13465.1 impermeable graphite materials - Test methods - Part 1. General Mechanical tests

3 Terms and Definitions

GB/T 13465.1 defined and the following terms and definitions apply to this document.

3.1 Flexural strength flexurestrength The graphite sample was placed on a standard pitch bearing, in the middle of a state that is under load, the sample can withstand the limit load value.

4 Instruments and equipment

Instruments and equipment shall comply with the relevant provisions of GB/T 13465.1 of.

5 Sample

5.1 Sampling and sample preparation according to GB/T 13465.1 of the relevant provisions.

5.2 Sample size.

a) block material. ($\Phi 20\text{mm} \pm 0.1\text{mm}$) $\times$ ($120\text{mm} \pm 0.5\text{mm}$) or ($\Phi 35\text{mm} \pm 0.1\text{mm}$) $\times$ ($200\text{mm} \pm 0.5\text{mm}$);

b) graphite tube. diameter, wall thickness deviation according to product specifications and regulations, the length of the tube diameter equal to 5 doubly 30mm;

c) casting the adhesive member. ($120\text{mm} \pm 0.5\text{mm}$) $\times$ ($20\text{mm} \pm 0.2\text{mm}$) $\times$ ($20\text{mm} \pm 0.2\text{mm}$).

5.3 specimen surface roughness $R_a \leq 3.2\mu\text{m}$.

5.4 each sample at least five.

6 Test device

6.1 Test apparatus Bending test apparatus as shown in Figure 1.