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

GB/T 13465.10-2024

Replacing GB/T 21921-2008

**Test method of impermeable graphite materials - Part 10:
Tensile strength**

不透性石墨材料试验方法 第10部分：抗拉强度

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Test equipment and instruments
- 4.2 Fixture
- 5 Sample
- 6 Test steps
- 7 Result calculation
- 10 Tensile strength

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 for standardization documents" Drafting. This document is part 10 of GB/T 13465 "Test methods for impermeable graphite materials". GB/T 13465 has been published for the following part.

--- Test methods for impermeable graphite materials Part

--- Test methods for impermeable graphite materials - Part

2.Flexural strength;

--- Test methods for impermeable graphite materials - Part

3.Compressive strength;

--- Test methods for impermeable graphite materials - Part

4.Impact strength;

---Test method for shrinkage of impermeable graphite phenolic adhesive;

--- Test method for hydraulic bursting of impermeable graphite tube;

--- Test method for weight gain and pore filling rate of impermeable graphite;

--- Test method for bond shear strength of impermeable graphite adhesive;

--- Test method for tensile strength of impermeable graphite adhesive bonds;

1 Scope

GB/T 13465.10-2024 is the Chinese national standard on test method of impermeable graphite materials - part 10: tensile 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 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2025. 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 document describes the test method for the tensile strength of impermeable graphite materials. This document is applicable to the determination of tensile strength of impermeable graphite materials at test temperatures below 400°C.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 13465.1 Test methods for impermeable graphite materials Part

3 Terms and definitions

The terms and definitions defined in GB/T 13465.1 apply to this document.

4 Test equipment and instruments

4.1 Tensile testing machine The tensile testing machine shall comply with the requirements of GB/T 13465.1.

4.2 Fixture

4.2.1 The fixture material should be normalized and tempered 15CrMoR, or other high temperature resistant metals that do not deform under test conditions. Material.

4.2.2 The connection between the fixture and the specimen is shown in Figure 1.

4.2.3 The structural type, main dimensions and deviations of the fixture used for testing the

tensile strength of impermeable graphite blocks shall comply with the requirements of Figure 2.

4.2.4 The structural type, main dimensions and deviations of the fixture used for testing the tensile strength of impermeable graphite tube specimens shall comply with the requirements of Figure 3.

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