

ICS 59.100.10

CCS Q 36



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

GB/T 25045-2025

Replacing GB/T 25045-2010

Basalt fibre roving

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Issued on: January 24, 2025

Implemented on: August 1, 2025

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

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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 is required. This document replaces GB/T 25045-2010 "Basalt fiber roving". Compared with GB/T 25045-2010, except for the structural adjustment In addition to the integration and editorial changes, the main technical changes are as follows: The term "basalt" has been deleted (see

3.1 of the.2010 edition);

a) The requirements for product code have been changed (see 4.2, 4.2 of the.2010 edition);

b) The appearance requirements have been changed (see 5.1.1, 5.1 of the.2010 edition);

c) The requirements for iron oxide content have been changed (see 5.1.2, 5.2 of the.2010 edition);

d) Added fiber density requirements and test methods (see 5.1.3, 6.3);

e) Modified the fiber diameter requirements (see 5.1.4, 5.3 of the.2010 edition);

f) The requirements for line density have been changed (see 5.1.5, 5.4 of the.2010 edition);

1 Scope

China's national product standard for basalt fibre roving. It specifies the classification, the

requirements, the test methods, the inspection rules and the marking, packaging, transport and storage of untwisted roving made from basalt fibre. Basalt fibre is made the way glass fibre is - melted and drawn through a bushing - but from a single raw material, crushed basalt rock, with nothing added. That is the whole economic argument for it: no batch formulation, no boron, no fluorine, and a feedstock that is one of the commonest rocks on earth. What comes out is a fibre with mechanical properties somewhat better than E-glass, a service temperature considerably higher, better resistance to alkali - which matters for concrete reinforcement, where alkali attack destroys ordinary glass fibre - and good chemical durability. It is also naturally a dark bronze colour, which cannot be removed, so it is used where appearance does not matter or where the colour is acceptable. The difficulty of the material is the variability of the source: a glass batch is formulated to a composition, while basalt is quarried, and the composition of the rock varies between deposits and within one. Fibre properties follow composition, so a roving from one quarry is not interchangeable with one from another unless the product is specified on what it does rather than on what it is made of. The standard therefore specifies the linear density and its tolerance, the tensile breaking strength, the moisture and the combustible content that measures the sizing, the stiffness and the ribbonisation, and the properties of a laminate made from the roving under a defined lay-up. Issued on 24 January 2025 and in force since 1 August 2025, it replaces GB/T 25045-2010.

2 Normative references

The contents of the following documents constitute the 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. in this document.

GB/T 191 Pictorial markings for packaging, storage and transportation

GB/T 1549 Chemical analysis methods for fiberglass

GB/T 7690.1-2013 Test methods for reinforcing yarns Part

GB/T 18369 Glass fiber roving

GB/T 18374 Terminology of Reinforced Materials

GB/T 41063 Determination of glass fiber density

GB/T 41065 Determination of combustible content of basalt fiber

GB/T 45129 Determination of the strength of reinforcing yarns in cement

3 Terms and definitions

The terms and definitions defined in GB/T 18374 and the following apply to this document.

3.1 A bundle of multiple parallel basalt fiber bundles or single basalt fiber bundles without twisting.

Note. Including basalt fiber plied roving and basalt fiber direct roving.

4 Classification and labeling

4.1 Product Categories Products are categorized in the following forms. According to the manufacturing process, it is divided into.

a) Ply untwisted roving; Direct untwisted roving.

5 Determination of fiber diameter of glass fibers

GB/T 9914.1 Test methods for reinforced products Part