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

GB/T 15231.1-1994

Replacing GB/T 15231-2008

**Test methods for the properties of glassfibre reinforced cement
(English Translation)**

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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 GB/T 15231-2008 "Test Methods for Performance of Glass Fiber Reinforced Cement" and is consistent with GB/T 15231-2008 in addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The anchor pullout force, embedded bolt sleeve pullout force, shrinkage rate, accelerated aging test piece size and quantity were added to the test piece preparation (see Section 1):

Table 1 and Table 2 of Chapter 4);

b) Added standard test conditions (see Chapter 5);

c) Added the anchor pullout force test method (see Chapter 11);

- d) Added the test method for embedded bolt sleeve pullout force (see Chapter 12);
- e) Added normative reference document JG/T 243 (see 13.1:5);
- f) The automatic freezing and thawing test method has been added to the freezing resistance test method (see 13.1:5 and 13:2:4);
- g) Added shrinkage test method (see Chapter 14);
- h) Added accelerated aging test method (see Chapter 15):

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document describes the bulk density, moisture content, water absorption, compressive strength, and bending properties (bending ratio limit) of glass fiber reinforced cement:

strength, bending ultimate strength and bending elastic modulus), tensile strength, impact strength, anchor pullout force, embedded bolt sleeve pullout force, frost resistance Test methods for resistance, shrinkage, accelerated aging and glass fiber content:

This document applies to performance testing of glass fiber reinforced cement:

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:

JG/T 243 Concrete frost resistance test equipment

3 Terms and definitions

The following terms and definitions apply to this document:

It is made of cement as the main cementing material, sand as fine aggregate, alkali-resistant glass fiber as the main reinforcing material, and supplemented by additives and other components:

Fiber-reinforced cement-based material:

Test board Use the test flat plate made with the same mix ratio, the same molding process, and curing under the same conditions as the product:

Test piece sample

A sample cut from a product or test board and used to test a certain performance:

glass fiber content glassfibrecontent the mass fraction of glass fiber in glass fiber reinforced cement:

anchor

Used to connect glass fiber reinforced cement panels and attached steel frames, with a certain degree of rotational freedom of 90° in the direction perpendicular to the panels:

Curved steel bars:

bonding pad bonding pad an additional pile of fiberglass-reinforced cement material placed on top of a structural layer of fiberglass-reinforced cement to secure anchors:

Note: Generally used on glass fiber reinforced cement components with steel frames attached to the back: