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

GB/T 14208.1-2009

**Textile-glass-reinforced plastics -- Determination of mechanical
properties on rods made of roving-reinforced resin -- Part 1:
General considerations and preparation of rods
(English Translation)**

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Foreword

GB/T 14208 "glass fiber reinforced plastic roving - reinforced resin rod measuring mechanical properties" is divided into four parts.

- Part 1. General considerations and preparation of rods;
- Part 2. Determination of flexural strength;
- Part 3. Determination of compression strength;
- Part 4. apparent interlaminar shear strength was measured.

This section GB/T 14208 Part 1, this part identical with ISO 3597-1:2003 "woven glass fiber reinforced plastic Part 1 Determination of roving-reinforced resin material mechanical properties on rods. General and rods prepared "(in English).

This section is equivalent translation ISO 3597-1:2003, identical in technical content.

For ease of use, this section made the following editorial changes.

- a) to the "international standards" to the "standard" to "this part of ISO 3597" with the words "GB/T 14208 this part" or "the section";
- b) Remove the preface international standards;
- c) increase the national standard foreword;
- d) the "Normative references" international standards with the corresponding equivalent international standards in place of national standards listed chapter.

Appendix A of this section is an informative annex.

This part is proposed by the China Building Materials Federation.

The fiber-reinforced plastic part by the National Standardization Technical Committee (SAC/TC39) centralized.

This section is responsible for drafting unit. Beijing glass Composite Material Co., Ltd.

1 Scope

This section GB/T 14208 specifies the rovings for the GB/T 14208 other part of the test reinforced resin rod (hereinafter referred to as Stick) preparation.

2 Normative references

The following documents contain provisions which, through reference GB/T 14208 in this section constitute provisions of this section. For dated references, all subsequent amendments (excluding corrections) or revisions do not apply to this section, however, encourage an agreement under this section Parties to study the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 2918 plastic conditioning and environmental standards (GB/T 2918-1998, idtISO 291.1997) Test GB/T 14208.2 Textile glass reinforced plastics - Determination of roving - reinforced resin rod mechanical properties Part 2. Bending strength Determination (GB/T 14208.2-2009, ISO 3597-2:2003, IDT) GB/T 14208.3 Textile glass reinforced plastics - Determination of roving - reinforced resin rod mechanical properties - Part 3. Compressive strength Determination (GB/T 14208.3-2009, ISO 3597-3:2003, IDT) GB/T 14208.4 Textile glass reinforced plastics - Determination of roving - reinforced resin rod mechanical properties - Part 4. apparent interlaminar Determination of shear strength (GB/T 14208.4-2009, ISO 3597-4:2003, IDT) ISO 1172 Textile glass reinforced plastics --- prepregs, molding compounds and laminates of textile glass and mineral filler content measurement calcination Principle 3

3.1 Summary

GB/T 14208 Test Method for the rest of the provisions are usually for the original bar (untreated), however, can be used in boiling water at Li certain period of time the test rods, boiling water treatment may be used other than approach tested. Other media and otherwise deal Test required by mutual agreement.

Chapter 5 gives the details of the preparation of the rod, including the preparation of rod, bar specimen processed into a predetermined length, boiling water treatment (such as requirements at Li). In order to obtain similar results, preparation of rods conditions, such as a resin mixture composition, immersion time, and the curing conditions pulling speed due Possible consensus.

3.2 Determination of flexural strength

Two horizontally placed sample holder, in the center of the span continuously apply the load to bend the sample at a constant rate, until the destruction of the sample (see GB/T

14208.2).

The maximum bending stress destruction of the sample as bending strength.

3.3 Determination of compression strength

At a constant speed is applied to the ends of the specimen load, axial compression until the sample damage or deformation reaches a predetermined value (see GB/T 14208.3).

Compressive stress at maximum load as compressive strength.

3.4 Determination of apparent interlaminar shear strength between the Apparent interlaminar shear strength test is similar to the bending test, but during apparent interlaminar shear strength test, in order to make the sample surface by GB/T 14208.1-2009/ISO 3597-1:2003