

ICS 59.100.10
CCS Q 36



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

GB/T 7689.4-2013

Replacing GB/T 7689.4-2001

**Reinforcements -- Test method for woven fabrics -- Part 4:
Determination of flexural stiffness**

增强材料 机织物试验方法 第4部分：弯曲硬挺度的测定

(English Translation)

Issued on: November 27, 2013

Implemented on: August 1, 2014

Issued by: Standardization Administration of China

Table of Contents

Foreword

1 Scope

2 Normative references

4 Instrument

Foreword

GB/T 7689 "Test method for woven fabrics reinforced" is divided into five sections.

--- Part 1. Determination of thickness;

--- Part 2. warp, weft density measurement;

--- Part 3. Determination of width and length;

--- Part 4. Determination of bending stiffness;

--- Part 5. Determination of breaking glass fiber tensile strength and elongation.

This part of GB/T 47689 Part of.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 7689.4-2001 "Enhanced Test methods for woven fabrics - Part 4. Determination of stiffness", and GB/T 7689.4-2001 main differences are as follows.

--- Clear standard does not apply objects (see Chapter 1, Chapter 1 of the 2001 edition);

--- "Normative references" to remove the GB/T 18374-2001, increase the ISO 291 and ISO 3374 (see Chapter 2, Chapter 2 of the 2001 edition);

--- Remove the "Definitions" chapter (see Chapter 3 of the 2001 edition);

--- After the principle of increasing the injection, indicating the source of the principles of the technology (see Chapter 3 of the note);

--- Temperature and humidity increase the limit on the mass changes (see Chapter 5, 2001 edition 7.2);

--- "Test report" increases the need to give the information [see Chapter 9 item h), i) and item j),].

This section uses the translation method identical with ISO 4604:2011 "Determination of fabric reinforced flexural stiffness of ordinary fixed-angle bend count law".

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 2918-1998 plastic sample conditioning and testing of the standard environment (ISO 291:1997, IDT);

--- GB/T 9914.3-2013 Enhanced Test methods - Part 3. Determination of mass per unit area (ISO 3374:2000, MOD).

This part made the following editorial changes.

--- Consistent with the existing standard series, the standard name will be changed to "Reinforcements method for woven fabrics Part 4. bending stiffness Determination of "degrees.

This part of the National Standardization Technical Committee fiberglass (SAC/TC245) centralized.

This section is responsible for drafting. Nanjing Fiberglass Research and Design Institute Limited, the national glass fiber product quality supervision and inspection center.

1 Scope

GB/T 7689 This section specifies the method with a fixed angle of bending was measured by the bending stiffness of the reinforcing fabric.

This method does not apply to soft or significant curling, twisting tendency or worn fabric.

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.

ISO 291 environmental standard plastic sample conditioning and testing (Plastics-Standard atmospheres for conditioning and testing) ISO 3374 Standard Test Method for Determination of enhancing product quality felt and fabric unit area (Reinforcement products-Mats and Fabrics-Determination of mass per unit area) Principle 3 A rectangular strip specimen will be placed on a horizontal platform, which is perpendicular to the longitudinal direction of the front edge of the platform. Direction along the length of the specimen sample, so Gradually increase the length of the sample extends under the action of gravity, this club slowly recurved, when the front end of the sample strip is bent to extend the platform surface of 41.5 ° in a plane, the projected length of the measuring portion.

According to the sample length and extending mass per unit area, calculated ordinary bending stiffness.

NOTE: This test method is based on the following two reports published in, ShirleyInstituteMemoirs Vol. 9 (1930), pp. 81 and Journalofthe textileinstitute Volume 21 (1930), T380.

4 Instrument

4.1

meter fixed-angle bend, which constitutes shown in Figure 1.

On horizontal platform P has a sliding scale S, the upper surface of the slider has a scale in millimeters.

Slider lower surface layer of high friction anti-static material, such as rubber sheet. Upper surface of the horizontal platform P to be polished smooth, when the slider S We can bring together the sample moves forward to move forward.

Slider width should be 25mm, length of at least 300mm, quality should be that every centimeter length $10g \pm 2g$.

When the leading edge of the horizontal platform P coincides with the leading edge of the slider S, S slider zero scale line and instrument baseline D coincide. Two engraved on the transparent sidewalls of the instrument identification lines L1 and L2, and the leading edge of the horizontal platform P intersects with the composition while horizontal platform extension surface P into 41.5° of the plane.

Instrument measurement range is determined by its size, the size of the instrument should be sufficient to measure the length of the sample protruding portion.

4.2

template, having a size of 250mm x 25mm.

4.3

appropriate cutting tool.