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

GB/T 17200-2008

**Technical specification for tensile, compression and flexural
testing machines for rubber and plastics (constant rate of
traverse)**

(English Translation)

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Foreword

Please note that some of the content of this Standard may involve patents. The issuing agency of this Standard does not undertake the responsibility to identify these patents.

This Standard equivalently adopts the International Standard ISO 5893.2002 "Rubber and plastics test equipment - Tensile, flexural and compression types (constant rate of traverse) - Specification" (English third edition).

This Standard is equivalent to translation of ISO 5893.2002. The standard structure and technical content are the same completely. For ease of use, this Standard makes the following editorial changes to ISO 5893.2002.

- According to Chinese habit, modify the standard name;
- Delete the foreword of ISO 5893.2002; re-write the foreword of this Standard;
- The "international standard" is changed to be "this Standard";
- Use the decimal symbol "." To replace the comma "," that acts as decimal symbol in

English;

- The international standards referenced in Chapter 2 have been transformed into national standards; this Standard directly quotes the corresponding national standards. This Standard replaces GB/T 17200-1997 "Requirements for tensile, flexural and compression testing machines for rubbers and plastics".

Compared with GB/T 17200-1997, the main changes of this Standard are as follows.

- Modify the standard name;
- Add Chapter 2 "Normative references" (see Chapter 2 of this edition);
- Delete two terms (Chapter 2 of 1997 edition; Chapter 3 of this edition);
- For testing machine, add 0.5 and 3 two levels; delete the superscript "1" of elongation or deformation classification symbol (Chapter 3 of 1997 Edition; Chapter 4 of this edition);
- Modify the relevant provisions of the steady-state machine accuracy (Chapter 7 of

1997 edition; Chapter 8 of this edition).

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Test-machine Standardization Technical Committee (SAC/TC 122).

Responsible drafting organization of this Standard. Changchun Test-machine Institute.

Participating drafting organizations of this Standard. Shanghai Hualong Test Instrument Co., Ltd., Jinan Shidai Shijin Instrument Co., Ltd. AND Chengde Jinjian Test Instrument Co., Ltd.

The drafters of this Standard. Wang Xuezhi, Li Mingyi, Yuan Song, Liu Juan, Li Minghua and Huang Dongkai.

The previous edition replaced by this Standard is as follows.

- GB/T 17200-1997.

Technical specification for tensile, compression and flexural testing machines for rubber and plastic (constant rate of traverse)

1 Scope

This Standard specifies requirements for tensile-testing systems operating at constant rate of traverse and suitable for testing rubbers, plastics and adhesives. It also covers such systems when used for flexural, shear and compression tests.

Any one system may only be applicable to a narrower range of materials.

2 Normative references

The following normative document contains provisions which, through reference in this text, constitute provisions of this Standard For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

GB/T 16825.1-2008 Static uniaxial testing machines - Part 1.Rally and (or) pressure force measuring system of the testing machine inspection and calibration (ISO 7500-1.2004, Metallic materials - Verification of static uniaxial testing machines Part 1. Tension / compression testing machines - Verification and calibration of the force-measuring system, IDT)

3 Terms and definitions

For the purposes of this Standard, the following terms and definitions apply.

3.1

tensile-testing system

machine composed of a nominally fixed member and a movable member, to which may be attached suitable grips or jigs for holding a test piece

element, sensitivity to mains supply voltage fluctuation and change in electronic component value.

The manufacturer shall therefore state in his specification, and in any instruction manual,

such of the following requirements as may be necessary to maintain the stated accuracy of the machine.

- a) the temperature range over which the machine accuracy is guaranteed;
- b) the variation of supply voltage over which the machine accuracy is guaranteed;
- c) the frequency at which is it necessary to adjust any manual control, e.g. for zero or span.

13 Certificate of verification

When a test machine has been verified in accordance with this Standard, the verifying authority shall issue a certificate stating the following.

- a) the identity of the machine and the date of verification;
- b) the range certified and the class of each force or extension scale;
- c) the method of verification used and the identity of any calibration devices employed;
- d) the ambient temperature at the time of verification;
- e) the accuracy of the rate setting;
- f) the number of this Standard, i.e. GB/T 17200-2008 / ISO 5893.2002.

The test machine shall be re-verified periodically to ensure that it continues to meet the class(es) designated from this Standard. The frequency of re-verification depends on the type of machine, the standard of maintenance, and the amount of usage. Normally, it is recommended that re-verification be carried out at intervals not exceeding 12 months.

However, a machine shall be re-verified if it is moved to a new location or if it is subjected to major repairs or adjustments.

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