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

GB/T 12703.4-2010

**Textile - Evaluation for electrostatic properties - Part 4:
Resistivity**

纺织品 静电性能的评定 第4部分：电阻率

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Foreword

GB/T 12703 "Evaluation of electrostatic properties of textiles" includes the following seven sections.

--- Part 1. electrostatic voltage half-life;

--- Part 2. surface charge density;

--- Part 3. charge amount;

--- Part 4. resistivity;

--- Part 5. friction charging voltage;

--- Part 6. fiber leakage resistance;

--- Part 7. dynamic static voltage. This section GB/T Part of 412,703. This part is proposed by the China Textile Industry Association. This part of the National Standardization Technical Committee based textile branch (SAC/TC209/SC1) centralized. This section drafted by: National Textile Products Quality Supervision and Inspection Center, Zhejiang Garment Co., Ltd. . The main drafters of this section. Renhe Ning, Wang Baojun, Gujie Ping. Evaluation of electrostatic properties of textiles Part 4. Resistivity

1 Scope

GB/T 12703.4-2010 is the Chinese national standard on textile - evaluation for electrostatic properties - part 4: resistivity, in the field of textile and leather technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 January 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2011. Classification: ICS 59.080.01, CCS W04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in

English translation.

GB/T 12703 provisions of this part of the test method of textiles volume resistivity and surface resistivity. This section applies to all types of textile fabrics. This section does not apply to textile floor coverings.

2 Normative references

The following documents contain provisions which, through

GB/T 12703 reference in this text, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 8629-2001 Textiles - Domestic washing and drying test procedures (eqv ISO 6330.2000)

3 Terms and Definitions

The following terms and definitions apply GB/T 12703 in this section.

3.1 Volume resistivity volumeresistance After a given energization time, it applied to the two electrodes introduced between two opposing surfaces of a DC and materials in contact Voltage ratio for the current between the two electrodes, the two electrodes on the possible polarization is negligible.

Note. Unless otherwise specified, the volume resistivity is measured after 1min electrification.

3.2 Volume resistivity volumeresistivity Volume of the sample along the direction of the current DC electric field strength and the steady-state current density ratio.

3.3 Surface resistance surfaceresistance DC voltage after a given power-on time, the standard is applied between the electrodes on the surface of the material for the current between the electrodes Ratio on the electrode polarization phenomena may be negligible.

Note 1. Unless otherwise specified, the surface resistance was measured after 1min electrification.

Note 2. The normal current flows mainly through a surface layer of the sample, but also flows through the components within the sample volume.

3.4 Surface resistivity surfaceresistivity Current ratio along the surface of the current direction of the sample surface intensity per unit length of the DC electric field conduction.

3.5 Electrode electrodes An electrode having a certain shape, size and structure of the

sample under test contact conductors.

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