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

GB/T 7742.2-2015

**Textiles -- Bursting properties of fabrics -- Part 2: Pneumatic
method for determination of bursting strength and bursting
distension**

(English Translation)

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Foreword

GB/T 7742 "Textiles - Bursting properties of fabrics" consists of the following 2 parts.

- Part 1. Hydraulic method for determination of bursting strength and bursting distension;
- Part 2. Pneumatic method for determination of bursting strength and bursting distension

This Part is the second part of GB/T 7742.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009.

This Part uses redrafting method to modify and adopt ISO 13938-2.1999

"Textiles. Bursting properties of fabrics. Pneumatic method for determination of bursting strength and bursting distension" (English version). Compared with ISO 13938-1.1999, the main differences are as follows.

- International standards in normative references were replaced by corresponding national standards;

- 6.1 and its subordinate terms of the International standard were modified as 6.1 ~ 6.8;

- 10.1 and 10.2 of the International standard were modified as 10.2 and 10.3; added "the plane that is in contact with diaphragm" in 10.2 g).

This Part was proposed by China National Textile and Apparel Council.

This Part shall be under the jurisdiction of National Technical Committee for Textile Standardization (SAC/TC 209).

The drafting organizations of this Part. Wenzhou Darong Textile Instrument Co., Ltd., Textile Industry Standardization Institute, Wenzhou Fangyuan Instrument Co., Ltd., and China Textile Standard (Beijing) Test and Certification Center Co., Ltd.

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Textiles - Bursting properties of fabrics - Part 2.

Pneumatic method for determination of bursting strength and bursting distension

1 Scope

This Part of GB/T 7742 specified pneumatic method for determination of bursting strength and bursting distension, including programs of bursting property determination by humidifying and wetting sample.

Note: Pneumatic method is specified in Part 1 of GB/T 7742.

This Part is applicable to knitted fabric, woven fabric, nonwoven fabric and laminated fabric, as well as a variety of fabrics manufactured by other processes.

Available data suggest that there are no significant differences between results of bursting strength obtained by hydraulic and pneumatic bursting instruments when pressure does not exceed 800kPa. This pressure range includes the performance level of most common clothing. Hydraulic method is more

applicable for special textile products that require greater bursting pressure.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 6529 Textiles - Standard atmospheres for conditioning and testing

GB/T 6682 Water for analytical laboratory use - Specification and test methods

GB/T 19022 Measurement management systems - Requirements for measurement processes and measuring equipment

5 Sampling

Sampling shall be in accordance with provisions of product standard or agreement of related parties. If there is no provision in product standard, as an example, a suitable method of selecting sampling part is offered in Appendix A. Sampling shall not be conducted at the folded part, the wrinkled part, selvage or the part which cannot represent fabric. In general, the holding system can be used for test without cutting sample.

6.1 Confirmation of bursting instrument measurement shall be conducted according to GB/T 19022.

6.2 The instrument shall be able to increase gas pressure to obtain (20±5)s time to burst. In order to adjust gas flow rate based on the time to burst, it shall also require an indication control valve besides the main gas control valve.

6.3 When bursting pressure is greater than 20% of full range, its accuracy shall be ±2% of full range.

6.4 When height at burst is less than 70 mm, its accuracy shall be ± 1 mm. At

the beginning of the test, the measuring gauge zero shall be adjusted, so as to suit sample thickness.

6.5 Test area shall be 50 cm² (diameter is 79.8 mm).

If the preferred test area is not applicable on existing equipment, or because fabric has a larger or a smaller stretch properties, or there are other requirements of multi-party agreement, it shall also use 100 cm² (diameter is

112.8 mm), 10 cm² (diameter is 35.7 mm), 7.3 cm² (diameter is 30.5 mm) or other test area.

6.6 Holding device shall be able to firmly hold sample, so as to prevent sample

from damage, deformation or slipping during the test. Holder ring shall make high elongation fabric (its height at burst is greater than half of sample diameter) dome unhindered. Make inner diameter of sample holder ring to ± 0.2 mm, so as to keep sample from damage. Recommend that holder ring and inner diameter edge in contact with sample looks round.

6.7 During the test, the safety cover shall be able to surround the clamping

device, and the extension of sample shall be clearly observed in the test.

6.8 Diaphragm shall comply with the following requirements.

discarded test number;

f) Observation of bursting properties (e.g., one or two yarn directional damage);

g) Sample state (humidification or wet state), and the plane that is in contact with diaphragm;

h) Any deviation from this Part.