INTERNATIONAL STANDARD

ISO 13938-2

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Textiles — Bursting properties of fabrics —

Part 2: Pneumatic method for determination of bursting strength and bursting distension

Textiles — Propriétés de résistance à l'éclatement des étoffes —

Partie 2: Méthode pneumatique pour la détermination de la résistance et de la déformation à l'éclatement

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 13938 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 13938-2 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 38, *Textiles*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this standard, read "...this European Standard..." to mean "...this International Standard...".

ISO 13938 consists of the following parts, under the general title *Textiles — Bursting properties of fabrics*:

— *Part 1: Hydraulic method for determination of bursting strength and bursting distension*

— *Part 2: Pneumatic method for determination of bursting strength and bursting distension*

Annex A of this part of ISO 13938 is for information only.

Annex ZA provides a list of corresponding International and European Standards for which equivalents are not given in the text.

For the purposes of this part of ISO 13938, the CEN annex regarding fulfilment of European Council Directives has been removed.

Foreword

The text of EN ISO 13938-2:1999 has been prepared by Technical Committee CEN/TC 248 "Textiles and textile products", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 38 "Textiles".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

EN ISO 13938 is in two parts as follows:

EN ISO 13938-1 Textiles - Bursting properties of fabrics - Part 1: Hydraulic method for determination of bursting strength and bursting distension (ISO 13938-1:1998)

EN ISO 13938-2 Textiles - Bursting properties of fabrics - Part 2: Pneumatic method for determination of bursting strength and bursting distension (ISO 13938-2:1998)

NOTE: Normative references to International Standards are listed in annex ZA (normative).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard describes a pneumatic pressure method for the determination of bursting strength and bursting distension of textile fabrics.

NOTE : EN ISO 13938-1 describes a method using hydraulic pressure.

The method is applicable to knitted, woven, nonwoven and laminated fabrics. It may be suitable for fabrics produced by other techniques. The test is suitable for test specimens in either the conditioned or wet state.

From the available data there appears to be no significant difference in the bursting strength results achieved using hydraulic or pneumatic burst testers, for pressures up to 800 kPa. This pressure range covers the majority of performance levels expected of general apparel. For speciality textiles requiring high bursting pressures, the hydraulic apparatus is more suitable.

2 Normative references

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

ISO 139:1973	Textiles - Standard atmospheres for conditioning and testing
EN ISO 3696	Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)
EN 30012-1:1993	Quality assurance requirements for measuring equipment - Part 1:Metrological confirmation system for measuring equipment (ISO 10012-1:1992)

3 Definitions

For the purposes of this standard the following definitions apply:

3.1 test area: Area of the test specimen within the circular clamping device.

3.2 bursting pressure (pressure at burst): Maximum pressure applied to a test specimen clamped over an underlying diaphragm until the test specimen ruptures.

3.3 bursting strength (strength at burst): Pressure obtained by subtracting the diaphragm pressure from the mean bursting pressure.

3.4 diaphragm pressure: Pressure applied to the diaphragm, with no test specimen present, to distend it to the mean bursting distension of the test specimen.