INTERNATIONAL STANDARD

ISO 1421

Third edition
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Rubber- or plastics-coated fabrics — Determination of tensile strength and elongation at break

Supports textiles revêtus de caoutchouc ou de plastique — Détermination de la force de rupture et de l'allongement à la rupture

Reference number
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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

This third edition cancels and replaces the second edition (ISO 1421:1998), which has been technically revised. The changes are as follows.

— In Clause 3, gauge length and reference points have been added and Figures 1, 2, and 3 have been moved to clarify the definitions.

— The title of Clause 5 has been changed.

— Clause 6 has been subdivided in two subclauses and conditions have been clarified respectively by referring to the particulars specified in ISO 2231:1989.

— A new clause has been added to specify the time-interval between manufacture and testing.

— In 8.1, two narrower widths of 10 mm and 30 mm have been added for test piece and the pre-tension forces have been revised accordingly. The procedure for the test pieces with reference mark has been incorporated.

— In 8.2, the procedure for handling abnormal test results has been modified.

Rubber- or plastics-coated fabrics — Determination of tensile strength and elongation at break

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies two methods for the determination of the tensile strength of fabrics coated with rubber or plastics.

— Method 1 — the strip test method, which is a method for the determination of tensile strength and elongation at break.

— Method 2 — the grab test method, which is a method for the determination of tensile strength only.

The methods apply to test pieces in equilibrium with specific standard atmospheres for testing and to wet test pieces. Both methods require the use of a constant rate of extension (CRE) tensile-testing machine.

2 Normative references

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

ISO 2231:1989, *Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing*

ISO 2286-2, *Rubber- or plastics-coated fabrics — Determination of roll characteristics — Part 2: Methods for determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate*

ISO 7500-1, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system.*

3 Terms and definitions

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

3.1
constant rate of extension
CRE
means of conducting a tensile test in which the rate of increase in the length of the test piece is uniform with time

Note 1 to entry: The rate of increase of the force is dependent upon the extension characteristics of the test piece.