INTERNATIONAL STANDARD

ISO 2286-1

Second edition
2016-09-15

Rubber- or plastics-coated fabrics — Determination of roll characteristics —

Part 1: Methods for determination of length, width and net mass

Supports textiles revêtus de caoutchouc ou de plastique — Détermination des caractéristiques des rouleaux —

Partie 1: Méthodes de détermination de la longueur, de la largeur et de la masse nette

Reference number
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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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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.

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: Foreword – Supplementary information

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

This second edition cancels and replaces the first edition (ISO 2286-1:1998), which has been technically revised. The changes are as follows:

— in Clause 2, ISO 2231:1989 has been added;

— in 5.1, the statement on the atmospheric conditions and relaxation of tension has been incorporated;

— in 5.2, the allowance of the final length in measurement has been changed;

— in 5.3 and 5.4, the tolerance has been changed to more flexible;

— in Clause 6, item b) has been added.

ISO 2286 consists of the following parts, under the general title *Rubber– or plastics–coated fabrics — Determination of roll characteristics*:

— *Part 1: Methods for determination of length, width and net mass*

— *Part 2: Methods for determination of total mass per unit area, mass per unit area of coating and mass per unit area of substrate*

— *Part 3: Method for determination of thickness*

Rubber- or plastics-coated fabrics — Determination of roll characteristics —

Part 1: Methods for determination of length, width and net mass

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 part of ISO 2286 specifies methods of determining the length, width and net mass of a roll of rubber- or plastics-coated fabrics.

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*

3 Terms and definitions

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

3.1
usable width
width of a coated fabric, excluding the selvedge, which is consistent in its properties, uniformly finished, and free from unacceptable flaws

4 Apparatus

4.1 Measuring surface, comprising a flat horizontal surface not less than 5 m long and at least as wide as the roll to be examined. Both longitudinal edges of this surface shall be marked off in 1 m lengths. At least one of these lengths, preferably at the end of the surface, shall be marked at 1 cm intervals.

4.2 Measuring scale, of a length greater than the width of the fabric to be measured, graduated in millimetres.

4.3 Balance, accurate to the nearest 100 g.

5 Procedure

5.1 General

Record the atmospheric temperature and the humidity in which measurement took place together with a statement as to whether the coated fabric was measured directly from the roll or after being allowed to relax tension free.

When an environment to control the atmospheric temperature and the humidity is available, it is recommended that coated fabrics are conditioned in an environment complying with the method of conditioning “1” in ISO 2231:1989 for a minimum of 16 h prior to measurement of length, width and net mass. It is also advisable when measuring length or width to unroll the fabric onto a flat surface and to allow the fabric to come to equilibrium without tension for a minimum of 16 h.

5.2 Determination of length

Proceed either as described in the following paragraph of this subclause, or use any other suitable mechanical, electromechanical or photoelectric equipment for measuring coated-fabric length. The alternative means of measurement, however, can be unsuitable for extensible coated fabrics such as those having a knitted substrate.

Trim the cut end of the roll so that it is at right angles to the longitudinal axis of the roll, confining the trimming to the minimum necessary to ensure perpendicularity. With the cut end of the roll coincident with the zero mark on the measuring surface (4.1), unroll the material along the surface in such a manner that no tension is introduced. On reaching the other end of the surface, mark the back of the roll in some suitable way at both edges so that the marks coincide with a particular division of length. Re-roll the length that has been measured. Lay out, free from tension, a further length of the unmeasured part of the roll, and measure from the edge marks, as before. Repeat this process until the end of the roll appears, trimming this as necessary until it is at right angles to the longitudinal axis of the roll, again confining the trimming to the minimum necessary to ensure perpendicularity. Measure the final length to the nearest 100 mm unless otherwise specified between the interested parties.

In cases of dispute, this method shall be the referee method.

5.3 Determination of usable width

While the coated fabric is unrolled and free of tension during the measurements described in 5.2, measure, using the measuring scale (4.2), and record, at intervals of 10 m, the usable width of the coated fabric to the nearest 5 mm unless otherwise specified between the interested parties, ensuring that all measurements of width are taken at right angles to the longitudinal axis of the roll.

For rolls less than 20 m long, measure the width at three positions, i.e. near the two ends and in the middle.

5.4 Determination of net mass

Use the balance (4.3) to determine the mass of the tube or former upon which the coated fabric was rolled and record the value in grams. Roll the coated fabric on the tube or former. Determine the gross mass of the roll of coated fabric and record the value in grams. Deduct the mass of the tube or former from the gross mass of the roll and record this figure, to the nearest 100 g unless otherwise specified between the interested parties, as the net mass of the roll.

6 Test report

The test report shall include the following information. In item d), e), and f), use the value when it is specified between the interested parties.

a) a reference to this part of ISO 2286, i.e. ISO 2286-1;

b) the atmospheric temperature and the humidity at the time of the measurement;

c) a complete description of the coated fabric;

d) the length of the roll, in metres, rounded down to the nearest 0,1 m;

e) the mean of the recorded widths to the nearest 5 mm, and also the minimum usable width recorded;

f) the net mass of the roll, to the nearest 100 g;

g) details of the equipment used to measure the length in 5.2;

h) details of any deviations from the procedure specified;

i) the date of the determinations.

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