

This is a preview of "ISO 4674-1:2016". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2016-10-15

Rubber- or plastics-coated fabrics — Determination of tear resistance —

Part 1: Constant rate of tear methods

*Supports textiles revêtus de caoutchouc ou de plastique —
Détermination de la résistance au déchirement —*

Partie 1: Méthodes à vitesse constante de déchirement



Reference number
ISO 4674-1:2016(E)

© ISO 2016



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

This is a preview of "ISO 4674-1:2016". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus and reagents	2
5 Atmospheres for conditioning and testing	2
5.1 For conditioning.....	2
5.2 For testing.....	2
6 Time-interval between manufacture and testing	2
7 Method A — Tongued (double-tear) test piece	2
7.1 Selection and preparation of test pieces.....	2
7.2 Procedure.....	4
7.3 Calculation and expression of results.....	5
7.3.1 Trace with a series of definite peaks.....	5
7.3.2 Trace without definite peaks.....	5
8 Method B — Trouser-shaped (single-tear) test piece	6
8.1 Selection and preparation of test pieces.....	6
8.2 Procedure.....	7
8.3 Calculation and expression of results.....	8
9 Precision	8
10 Test report	8
Annex A (informative) Example of calculation of tear force	9
Annex B (normative) Wide-width trouser-shaped test piece	11

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: 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 second edition cancels and replaces the first edition (ISO 4674-1:2003), which has been technically revised. The changes are as follows.

- The title of [Clause 4](#) has been changed to "Apparatus and reagents". The clamping device and some reagents have been added.
- [Clause 5](#) has been broken down to two subclauses for conditioning and for testing respectively. The atmosphere of conditioning has been referred to the condition of "1" specified in ISO 2231:1989.
- New [Clause 6](#) "Time-interval between manufacturing and testing" has been added.
- In [7.1](#), [7.2](#), [8.1](#), and [8.2](#), the wet testing has been moved from [Clause 5](#) with partial modification.
- In [7.2](#) and [8.2](#), the procedure of handling abnormal test results has been incorporated. The NOTE in each subclause has been moved to the body text respectively.
- In [Clause 10](#), item f) has been added.
- [Annex B](#) has been changed to normative and the body text format has been subdivided by adding clauses.

ISO 4674 consists of the following parts, under the general title *Rubber- or plastics-coated fabrics — Determination of tear resistance*:

- *Part 1: Constant rate of tear methods*
- *Part 2: Ballistic pendulum method*

This is a preview of "ISO 4674-1:2016". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Tearing is amongst the more usual ways of destruction for many thin materials such as paper, coated or uncoated textiles, plastic films and leather. Knowledge of the resistance of these materials to this type of behaviour is therefore very important.

In practice, tearing can result from very different circumstances; hence the large number of test methods that have been developed in order to predict the behaviour of materials in various situations.

The ISO 4674 series deals with initiated tearing, i.e. the propagation of a tear from an initiating cut.

This part of ISO 4674 describes two methods using a tensile-testing machine at constant rate of elongation. ISO 4674-2 describes a dynamic method using the kinetic energy of a falling pendulum.