

Plastics - Film and sheeting - Determination of tear resistance - Part 1: Trouser tear method (ISO 6383-1:2015)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 6383-1:2015 sisaldab Euroopa standardi EN ISO 6383-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 6383-1:2015 consists of the English text of the European standard EN ISO 6383-1:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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EUROPEAN STANDARD

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English Version

Plastics - Film and sheeting - Determination of tear resistance - Part 1: Trouser tear method (ISO 6383-1:2015)

Plastiques - Film et feuille - Détermination de la résistance au déchirement - Partie 1: Méthode de déchirement pantalon (ISO 6383-1:2015)

Kunststoffe - Folien und Bahnen - Bestimmung der Reißfestigkeit - Teil 1: Hosenreiß-Verfahren (ISO 6383-1:2015)

This European Standard was approved by CEN on 31 October 2015.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 6383-1:2015) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 6383-1:2004.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 6383-1:2015 has been approved by CEN as EN ISO 6383-1:2015 without any modification.

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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).

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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 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 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 6383-1:1983), of which it constitutes a minor revision.

ISO 6383 consists of the following parts, under the general title *Plastics — Film and sheeting — Determination of tear resistance*:

- *Part 1: Trouser tear method*
- *Part 2: Elmendorf method*

Plastics — Film and sheeting — Determination of tear resistance —

Part 1: Trouser tear method

1 Scope

This part of ISO 6383 specifies a method of determining the tear resistance of plastic film or sheet less than 1 mm thick, in the form of standard trouser-shaped test specimens, tested under defined conditions of pre-treatment, temperature, humidity, and speed of testing.

The method is applicable to film and sheeting of both flexible and rigid materials, provided that the material is not so rigid that brittle fracture occurs during the test, or so deformable, in an irreversible way, that the energy used in the deformation of the specimen legs is significant (i.e. is not negligible) with respect to the energy used in tearing.

The method may not be suitable for determining the tear properties of cellular sheet and film.

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 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 527-3, *Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets*

ISO 4591, *Plastics — Film and sheeting — Determination of average thickness of a sample, and average thickness and yield of a roll, by gravimetric techniques (gravimetric thickness)*

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*

3 Terms and definitions

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

3.1

tearing force

average force required to propagate a tear at a constant tearing speed across a test specimen conforming to [Figure 1](#)

3.2

tear resistance

tearing force divided by the specimen thickness

4 Significance

4.1 This method may provide data for quality control, acceptance, or rejection in accordance with the terms of specifications and for research and development.