

Irish Standard I.S. EN ISO 6383-1:2015

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

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I.S. EN ISO 6383-1:2015

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This document is based on: EN ISO 6383-1:2015 *Published:* 2015-12-23

This document was published under the authority of the NSAI and comes into effect on:

2016-01-11

ICS number:

83.140.10

NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN ISO 6383-1:2015 is the adopted Irish version of the European Document EN ISO 6383-1:2015, Plastics -Film and sheeting - Determination of tear resistance - Part 1: Trouser tear method (ISO 6383-1:2015)

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EUROPEAN STANDARD NORME EUROPÉENNE

EN ISO 6383-1

EUROPÄISCHE NORM

December 2015

ICS 83.140.10

Supersedes EN ISO 6383-1:2004

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)

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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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INTERNATIONAL STANDARD

ISO 6383-1

Second edition 2015-12-15

Plastics — Film and sheeting — Determination of tear resistance —

Part 1: **Trouser tear method**

Plastiques — Film et feuille — Détermination de la résistance au déchirement —

Partie 1: Méthode de déchirement pantalon



Reference number ISO 6383-1:2015(E) ISO 6383-1:2015(E)



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ISO 6383-1:2015(E)

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).

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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 <u>Figure 1</u>

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.



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