SLOVENSKI STANDARD
SIST EN ISO 7765-1:2004

01-oktober-2004

Polimerni materiali – Filmi in folije – Ugotavljanje odpornosti proti udarcu z metodo prostega pada žela - 1. del: Metoda stopnjevanja (ISO 7765-1:1998)

Plastics film and sheeting - Determination of impact resistance by the free-falling dart method - Part 1: Staircase methods (ISO 7765-1:1988)

Kunststofffolien und -bahnen - Bestimmung der Schlagfestigkeit nach dem Fallhammerverfahren - Teil 1: Eingrenzungsverfahren (ISO 7765-1:1988)

Film et feuille de plastiques - Détermination de la résistance au choc par la méthode par chute libre de projectile - Partie 1: Méthodes dites de "l'escalier" (ISO 7765-1:1988)

Ta slovenski standard je istoveten z: **EN ISO 7765-1:2004**

ICS:

83.140.10	Filmi in folije	Films and sheets

SIST EN ISO 7765-1:2004 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 7765-1

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English version

Plastics film and sheeting - Determination of impact resistance by the free-falling dart method - Part 1: Staircase methods (ISO 7765-1:1988)

Film et feuille de plastiques - Détermination de la résistance au choc par la méthode par chute libre de projectile - Partie 1: Méthodes dites de "l'escalier" (ISO 7765-1:1988)

This European Standard was approved by CEN on 21 June 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN ISO 7765-1:2004: E

Foreword

The text of ISO 7765-1:1988 has been prepared by Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 7765-1:2004 by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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 January 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

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

Endorsement notice

The text of ISO 7765-1:1988 has been approved by CEN as EN ISO 7765-1:2004 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

Annex ZA
(normative)

Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	Year	Title	EN	Year
ISO 291	1997	Plastics - Standard atmospheres for conditioning and testing	EN ISO 291	1997

INTERNATIONAL STANDARD

ISO 7765-1

First edition
1988-12-15

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Plastics film and sheeting — Determination of impact resistance by the free-falling dart method

Part 1: Staircase methods

Film et feuille de plastiques — Détermination de la résistance au choc par la méthode par chute libre de projectile

Partie 1: Méthodes dites de «l'escalier»

Reference number
ISO 7765-1 : 1988 (E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7765-1 was prepared by Technical Committee ISO/TC 61, *Plastics.*

ISO 7765 consists of the following parts, under the general title *Plastics film and sheeting — Determination of impact resistance by the free-falling dart method*:

— *Part 1: Staircase methods*

— *Part 2: Instrumented puncture test*

Plastics film and sheeting — Determination of impact resistance by the free-falling dart method

Part 1: Staircase methods

1 Scope

1.1 This part of ISO 7765 specifies methods for the determination of the energy that causes plastics film and sheet less than 1 mm in thickness to fail under specified conditions of impact of a free-falling dart from a specified height that would result in failure of 50 % of the specimens tested.

1.2 Two methods of test are described.

1.2.1 Method A employs a dart with a 38 mm ± 1 mm diameter hemispherical head dropped from a height of 0,66 m ± 0,01 m. This method may be used for materials whose impact resistance requires masses of about 0,05 kg to about 2 kg to fracture them.

1.2.2 Method B employs a dart with a 50 mm ± 1 mm diameter hemispherical head dropped from a height of 1,50 m ± 0,01 m. Its range of applicability is from about 0,3 kg to about 2 kg.

1.3 The measurement technique is the staircase method. A uniform missile mass increment is employed during testing and the missile weight is decreased or increased by the uniform increment after test of each specimen, depending upon the result (failure or no failure) observed for the specimen.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7765. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7765 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 291 : 1977, *Plastics — Standard atmospheres for conditioning and testing.*

ISO 4591 : 1979, *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 : 1979, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning.*

3 Significance

3.1 Methods A and B are used to establish the mass of the dart causing 50 % of the specimens to fail under the conditions specified. Data obtained by one method cannot be compared directly with those from the other method, nor with those obtained from tests employing different conditions of missile velocity, missile impinging surface diameter, effective specimen diameter, and specimen thickness. The results obtained with particular values of these test variables are highly dependent on the method of fabrication of the film or sheeting.

3.2 The results obtained by methods A and B are greatly influenced by the quality of the material under test. The confidence limits of data obtained by this procedure can, therefore, vary significantly, depending on the sample quality, uniformity of gauge, die marks, contaminants, etc.

3.3 Methods A and B have been found useful for specification purposes. Correlation between test results and field performance can usually be established.

3.4 The impact resistance of film and sheeting, while partly dependent on thickness, has no simple correlation with sample thickness. Hence, impact values cannot be normalized over a range of thicknesses without producing misleading data as to the actual impact resistance of the material. Data from these methods are comparable only for sample sets that vary by no more than ± 10 % from the nominal or average thickness of the specimens tested.

4 Definitions

For the purposes of this part of ISO 7765, the following definitions apply.