

## **Plastics - Film and sheeting - Determination of the coefficients of friction**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 8295:2004 sisaldab Euroopa standardi EN ISO 8295:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 26.10.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 8295:2004 consists of the English text of the European standard EN ISO 8295:2004.</p> <p>This document is endorsed on 26.10.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This International Standard specifies a method for determining the coefficients of starting and sliding friction of plastic film and sheeting when sliding over itself or other substances</p>	<p><b>Scope:</b> This International Standard specifies a method for determining the coefficients of starting and sliding friction of plastic film and sheeting when sliding over itself or other substances</p>
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**ICS** 83.140.10

**Võtmesõnad:**

**English version**

**Plastics – Film and sheeting**  
Determination of the coefficients of friction  
(ISO 8295 : 1995)

Plastiques – Film et feuille – Détermination des coefficients de frottement  
(ISO 8295 : 1995)

Kunststoffe – Folien und Bahnen – Bestimmung der Reibungskoeffizienten  
(ISO 8295 : 1995)

This European Standard was approved by CEN on 2004-06-21.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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

## Foreword

International Standard

ISO 8295 : 1995 Plastics – Film and sheeting – Determination of the coefficients of friction, which was prepared by ISO/TC 61 'Plastics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 249 'Plastics', the Secretariat of which is held by IBN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by January 2005 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

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

## Endorsement notice

The text of the International Standard ISO 8295 : 1995 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

## 1 Scope

**1.1** This International Standard specifies a method for determining the coefficients of starting and sliding friction of plastic film and sheeting when sliding over itself or other substances. The method is intended to be used for non-sticky plastic film and sheeting (in the following text, referred to simply as "film") of up to approximately 0,5 mm thickness.

**1.2** This test method serves primarily for quality control. It does not give a comprehensive assessment of the machinability on packaging or processing machines since other effects, e.g. electrostatic charges, air cushion, local rise of temperature and abrasion are, as a rule, involved.

**1.3** The static frictional force increases as a rule, with the time the surfaces are in contact. Therefore, to get comparable results, this time span is specified.

**1.4** Slip properties are sometimes generated by additives in the plastic material. The additives have varying degrees of compatibility with the film matrix. They may bloom or exude to the surface and change the slip properties. Since these effects are time-dependent, measurements on such films have to be related to the age of the film.

## 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most re-

cent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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

## 3 Definitions

For the purposes of this International Standard, the following definitions apply.

**3.1 friction:** The resistance that two surfaces lying in contact with each other build up against sliding. A distinction is made between static friction and dynamic friction.

**3.1.1 static friction:** Friction which has to be overcome as a "threshold value" at the onset of sliding motion.

**3.1.2 dynamic friction:** Friction which persists during a sliding motion at a given speed.

**3.2 frictional force:** The force necessary to overcome friction. A distinction is made between the static frictional force  $F_S$  and the dynamic frictional force  $F_D$ .

**3.3 normal force,  $F_p$ :** The force acting perpendicular to the surfaces in contact.

**3.4 coefficient of friction:** The ratio of the frictional force to the normal force, acting perpendicular to the two surfaces in contact.

**3.4.1 static coefficient of friction:**

$$\mu_s = \frac{F_S}{F_p}$$