

Plastid - Plastifikaatorite migratsiooni määramine

Plastics - Determination of migration of plasticizers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 177:2000 sisaldab Euroopa standardi EN ISO 177:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 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 177:2000 consists of the English text of the European standard EN ISO 177:1999.</p> <p>This document is endorsed on 11.01.2000 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>
--	---

<p>Käsitlusala:</p> <p>This standard specifies a method for the determination of the tendency of plasticizers to migrate from plastics in which they are contained into other materials or other plastics when they are brought into close contact</p>	<p>Scope:</p> <p>This standard specifies a method for the determination of the tendency of plasticizers to migrate from plastics in which they are contained into other materials or other plastics when they are brought into close contact</p>
---	---

ICS 83.080.01

Võtmesõnad: determination, diffusion, migrations, plasticizers, plastics, tests

ICS 83.080.00

English version

Plastics

**Determination of migration of plasticizers
(ISO 177 : 1988)**

Plastiques – Détermination de la
migration des plastifiants
(ISO 177 : 1988)

Kunststoffe – Bestimmung der
Migration von Weichmachern
(ISO 177 : 1988)

This European Standard was approved by CEN on 1999-05-06.

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.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 177 : 1988 Plastics – Determination of migration of plasticizers, 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 December 1999 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 177 : 1988 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

This International Standard specifies a method for the determination of the tendency of plasticizers to migrate from plastics in which they are contained into other materials or other plastics when they are brought into close contact.

NOTE 1 — The surfaces into which the migration may proceed may also consist of organic surface coatings, such as lacquers.

This test is suitable

- a) for evaluating the tendency displayed by plastics, particularly in the form of films and sheets, to lose certain of their liquid constituents when they are brought into contact with materials that have an affinity for plasticizers;
- b) for studying the tendency to migrate of plasticizers contained in a resin or a series of resins, in one or more concentrations.

In case b), standard compounds should be prepared on the basis of a well characterized resin with well defined ratios of plasticizer to resin.

NOTE 2 — When the absorbent sheets themselves contain a substance capable of migrating, simultaneous migrations may occur from the test specimens into the absorbent sheets and vice versa.

The results may also be affected by the migration of other constituents of the plastic material (for example oligomers) or by the loss of any volatile constituents other than plasticizers from the plastic material or the absorbent layer.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were 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 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 293 : 1986, *Plastics — Compression moulding test specimens of thermoplastic materials*.

ISO 294 : 1975, *Plastics — Injection moulding test specimens of thermoplastic materials*.

ISO 4649 : 1985, *Rubber — Determination of abrasion resistance using a rotating cylindrical drum device*.

3 Definition

For the purposes of this International Standard, the following definition applies.

migration of plasticizers: The loss of mass of a sheet of plasticized plastic when placed in close contact between two absorbent sheets of another material, under specified conditions.

4 Principle

A test specimen cut from a sheet or plate of the material or from the finished product to be tested is placed in close contact with two sheets, capable of absorbing plasticizers. It is then subjected to heating under defined conditions. The loss in mass of the test specimen, theoretically equal to the increase in mass of the sheets, is a measure of the migration of the plasticizer.

5 Apparatus

5.1 **Analytical balance**, accurate to 0,001 g.

5.2 **Micrometer**, accurate to 0,01 mm.

5.3 **Air circulating oven**, capable of maintaining the temperature to within ± 2 °C, in the range 50 to 100 °C.

5.4 **Glass plates**, with plane surfaces, of sufficient size to cover the absorbent backing discs (5.6).

5.5 **Weights**, of 5 kg.

5.6 **Absorbent backing discs**, with an affinity for plasticizers, 60 mm \pm 1 mm in diameter and at least 0,5 mm in thickness.