SLOVENSKI STANDARD
SIST EN ISO 177:2000

01-maj-2000

Polimerni materiali - Določanje migracije mehčal (ISO 177:1988)

Plastics - Determination of migration of plasticizers (ISO 177:1988)

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

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

Ta slovenski standard je istoveten z: **EN ISO 177:1999**

ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general

SIST EN ISO 177:2000 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 177

June 1999

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 6 May 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

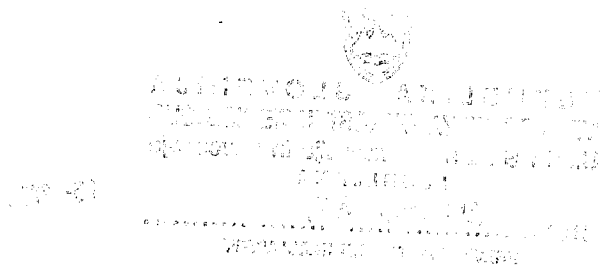
This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 1999, and conflicting national standards shall be withdrawn at the latest by December 1999.

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

Endorsement notice

The text of the International Standard ISO 177:1988 has been approved by CEN as aEuropean Standard without any modification.

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.

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

INTERNATIONAL STANDARD

ISO
177
Second edition
1988-06-15

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

Plastics — Determination of migration of plasticizers

Plastiques — Détermination de la migration des plastifiants

Reference number
ISO 177 : 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 177 was prepared by Technical Committee ISO/TC 61, *Plastics*.

This second edition cancels and replaces the first edition (ISO 177 : 1976), of which it constitutes a technical revision.

Printed in Switzerland

Plastics — Determination of migration of plasticizers

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 ± 1 mm in diameter and at least 0,5 mm in thickness.