



**SLOVENSKI STANDARD**  
**SIST EN ISO 176:2005**

01-maj-2005

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**SIST EN ISO 176:2000**

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Plastics - Determination of loss of plasticizers - Activated carbon method (ISO 176:2005)

Kunststoffe - Bestimmung der Weichmacherabgabe - Aktivkohleverfahren (ISO 176:2005)

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Matieres plastiques - Détermination des pertes en plastifiants - Méthode au charbon actif (ISO 176:2005)

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**Ta slovenski standard je istoveten z: EN ISO 176:2005**

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**ICS:**

83.080.01	Polimerni materiali na splošno	Plastics in general
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 176**

February 2005

ICS 83.080.01

Supersedes EN ISO 176:1999

English version

**Plastics - Determination of loss of plasticizers - Activated carbon  
method (ISO 176:2005)**

Matières plastiques - Détermination des pertes en  
plastifiants - Méthode au charbon actif (ISO 176:2005)

Kunststoffe - Bestimmung der Weichmacherabgabe -  
Aktivkohleverfahren (ISO 176:2005)

This European Standard was approved by CEN on 4 November 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.

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

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

**EN ISO 176:2005 (E)****Foreword**

This document (EN ISO 176:2005) 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 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 August 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

This document supersedes EN ISO 176:1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 176:2005 has been approved by CEN as EN ISO 176:2005 without any modifications.

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# INTERNATIONAL STANDARD

**ISO  
176**

Second edition  
2005-02-01

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## Plastics — Determination of loss of plasticizers — Activated carbon method

*Matières plastiques — Détermination des pertes en plastifiants —  
Méthode au charbon actif*

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## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 176 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

This second edition cancels and replaces the first edition (ISO 176:1976), Clause 8 of which is now Clause 9 and a new Clause 8 has been added.

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# Plastics — Determination of loss of plasticizers — Activated carbon method

## 1 Scope

This International Standard specifies two empirical methods for the quantitative determination of the loss of mass from a plastic material under defined conditions of time and temperature, in the presence of activated carbon.

These methods are used, in particular, for the quantitative determination of the loss on heating of plasticizers from plasticized plastic materials, in which case it is generally assumed that no significant amounts of other volatile materials are present.

These are empirical test methods, suitable only for a rather rapid comparison of the losses of plasticizers or, in general, of volatile compounds, from different plastics.

They may also be employed for the comparison of different types of plasticizers; in this case, standard compounds should be prepared, on the basis of a well characterized resin, with known ratios of resin to plasticizer.

NOTE These comparisons are possible only if the test specimens are of the same thickness. If it can be assumed that, after reconditioning, the moisture content of the exposed specimens is equal to that obtaining after the original conditioning, the effect of moisture may be ignored.

Two methods are specified:

- Method A: The test specimens are in direct contact with the carbon; this method is particularly useful for materials that have to be tested at relatively low temperatures because they flow at higher temperatures.
- Method B: The test specimens are placed in wire cages that prevent direct contact between the test specimens and the carbon.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. 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 293, *Plastics — Compression moulding of test specimens of thermoplastic materials*

## 3 Apparatus and materials

**3.1 Analytical balance**, accurate to 0,000 1 g.

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