SLOVENSKI STANDARD
SIST EN ISO 483:2006

01-april-2006

Nadomeģļ a:
SIST EN ISO 483:2000

Polimerni materiali - Majhne komore za kondicioniranje in preskušanje z uporabo vodnih raztopin za vzdrževanje stalne vlage (ISO/DIS 483:2004)

Plastics - Small enclosures for conditioning and testing using aqueous solutions to maintain the humidity at a constant value (ISO 483:2005)

Kunststoffe - Kleine Kammern für die Konditionierung und Prüfung bei konstanter Luftfeuchte über wässrigen Lösungen (ISO 483:2005)

Plastiques - Petites enceintes de conditionnement et d'essai utilisant des solutions aqueuses pour maintenir l'humidité a une valeur constante (ISO 483:2005)

Ta slovenski standard je istoveten z: **EN ISO 483:2005**

ICS:

83.200	Oprema za gumarsko industrijo in industrijo polimernih materialov	Equipment for the rubber and plastics industries

SIST EN ISO 483:2006 **en,fr,de**

EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN ISO 483

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English Version

Plastics - Small enclosures for conditioning and testing using aqueous solutions to maintain the humidity at a constant value (ISO 483:2005)

Plastiques - Petites enceintes de conditionnement et d'essai utilisant des solutions aqueuses pour maintenir l'humidité à une valeur constante (ISO 483:2005)

Kunststoffe - Kleine Kammern für die Konditionierung und Prüfung bei konstanter Luftfeuchte über wässrigen Lösungen (ISO 483:2005)

This European Standard was approved by CEN on 4 November 2005.

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

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Foreword

This document (EN ISO 483:2005) 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 May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

This document supersedes EN ISO 483:1999.

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 483:2005 has been approved by CEN as EN ISO 483:2005 without any modifications.

INTERNATIONAL STANDARD

ISO 483

Second edition
2005-11-15

Plastics — Small enclosures for conditioning and testing using aqueous solutions to maintain the humidity at a constant value

Plastiques — Petites enceintes de conditionnement et d'essai utilisant des solutions aqueuses pour maintenir l'humidité à une valeur constante

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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.

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 483 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 483:1988), in which the values of the relative humidity above the saturated salt solutions have been corrected to the values given in Reference [1] (see the Bibliography) which are generally accepted as the most reliable values by national physical laboratories.

Introduction

The properties of many plastics are strongly influenced by the relative humidity of the surrounding air.

This International Standard describes small cabinets for conditioning and testing of specimens at constant temperature and constant relative humidity above aqueous solutions of salts, sulfuric acid and glycerol.

Plastics — Small enclosures for conditioning and testing using aqueous solutions to maintain the humidity at a constant value

1 Scope

This International Standard establishes guidelines for the construction and use of enclosures with volumes less than 200 dm^3, in order to obtain atmospheres of constant relative humidity at given temperatures, using saturated aqueous salt solutions, glycerol/water solutions or sulfuric acid/water solutions, for conditioning and testing plastics.

It specifies the procedures to be followed to maintain the relative humidities of the conditioning and testing atmospheres within the required tolerances, at the temperatures specified by particular International Standards.

The procedures described are intended for conditioning small quantities of materials prior to test, and for such tests as may be carried out entirely within a small enclosure, e.g. electrical tests. The guidelines described do not apply to enclosures requiring frequent opening.

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 3696:1987, *Water for analytical laboratory use — Specification and test methods*

3 Principle

In a relatively small, closed container, aqueous solutions of specified concentration can be used to produce atmospheres with specific relative humidities under equilibrium conditions. Such atmospheres can be generated by using binary saturated aqueous salt solutions (see method A and Table 1), by using specific concentrations of aqueous glycerol solutions (see method B and Table 2) or by using aqueous sulfuric acid solutions (see method C and Table 3). In the case of method B and method C, it is necessary to measure and control the concentrations of these solutions.

Information is given concerning the methods of producing desired relative humidities in these enclosures at temperatures from 0 °C to 70 °C.

The relative-humidity values indicated have been taken from the literature [1]. The uncertainties involved are discussed in Clause 9.

