



SLOVENSKI STANDARD
SIST EN ISO 7783-1:1999
01-september-1999

6 Ufj Y]b`U_]!'8 c`c Yj Ub^YdfYdi g]bcg]nUj cXbc`dUfc`!'%rXY.`A YrcXUn'a Yf]bc
dcgcX]Wc`nUgi \ YdfYa UnbY'g`c^YVfYn'bcg]bYdcX`Uj Yf]GC`++,' !%%- * žj _`f bc
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Paints and varnishes - Determination of water-vapour transmission rate - Part 1: Dish method for free films (ISO 7783-1:1996, including Technical Corrigendum 1:1998)

Beschichtungsstoffe - Bestimmung der Wasserdampf-Diffusionsstromdichte - Teil 1: Schalenverfahren für freie Filme (ISO 7783-1:1996, einschließlich Technische Korrektur 1:1998)

Peintures et vernis - Détermination du coefficient de transmission de la vapeur d'eau - Partie 1: Méthode de la capsule pour feuilis libres (ISO 7783-1:1996, Rectificatif Technique 1:1998 inclus)

Ta slovenski standard je istoveten z: EN ISO 7783-1:1999

ICS:

87.040 Barve in laki Paints and varnishes

SIST EN ISO 7783-1:1999 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 7783-1

April 1999

ICS 87.040

English version

Paints and varnishes - Determination of water-vapour
transmission rate - Part 1: Dish method for free films (ISO 7783-
1:1996, including Technical Corrigendum 1:1998)

Peintures et vernis - Détermination du coefficient de
transmission de la vapeur d'eau - Partie 1: Méthode de la
capsule pour feuilis libres (ISO 7783-1:1996, Rectificatif
Technique 1:1998 inclus)

Beschichtungsstoffe - Bestimmung der Wasserdampf-
Diffusionsstromdichte - Teil 1: Schalenverfahren für freie
Filme (ISO 7783-1:1996, einschließlich Technische
Korrektur 1:1998)

This European Standard was approved by CEN on 1 April 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

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EN ISO 7783-1:1999

Foreword

The text of the International Standard from Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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 October 1999, and conflicting national standards shall be withdrawn at the latest by October 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.

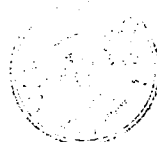
Endorsement notice

The text of the International Standard ISO 7783-1:1996 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 1512	1991	Paints and varnishes - Sampling of products in liquid or paste form	EN 21512	1994
ISO 1513	1992	Paints and varnishes - Examination and preparation of samples for testing	EN ISO 1513	1994
ISO 3270	1984	Paints and varnishes and their raw materials - Temperatures and humidities for conditioning and testing	EN 23270	1991
ISO 3696	1987	Water for analytical laboratory use - Specification and test methods	EN ISO 3696	1995

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INTERNATIONAL STANDARD

ISO
7783-1

First edition
1996-06-15

Paints and varnishes — Determination of water-vapour transmission rate —

Part 1:

Dish method for free films

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*Peintures et vernis — Détermination du coefficient de transmission de
la vapeur d'eau —
Partie 1: Méthode de la capsule pour feuillets libres*



Reference number
ISO 7783-1:1996(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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 7783-1 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

L'ISO 7783 consists of the following parts, under the general title *Paints and varnishes — Determination of water-vapour transmission rate*:

- *Part 1: Dish method for free films*
- *Part 2: Method for films supported by a porous substrate*

Annexes A to D form an integral part of this part of ISO 7783.

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Introduction

This part of ISO 7783 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products. It describes a method for determining the water-vapour transmission rate of an unsupported paint film. ISO 7783-2¹⁾ describes a method for determining the water-vapour transmission rate of a paint film supported by a porous substrate.

Water-vapour transmission rate is most commonly of interest when the coating is applied to a porous substrate. Depending on the conditions of use, water vapour may be expected to pass in either direction through the coating.

The procedure is commonly used to compare the transmission rates of two or more different paint films and not to obtain absolute results. In the latter case, it may be preferable to carry out the determination on a coated test piece of the appropriate permeable substrate. The procedure for carrying out that determination forms the subject of ISO 7783-2.

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1) To be published.

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Paints and varnishes — Determination of water-vapour transmission rate

Part 1:

Dish method for free films

1 Scope

This part of ISO 7783 specifies a method for the determination of the water-vapour transmission rate²⁾ of an unsupported film of paint, varnish or related product. The test method is applicable to the transmission of water vapour in either direction through a paint film.

ISO 1513:1992, *Paints and varnishes — Examination and preparation of samples for testing.*

ISO 2528:1995, *Sheet materials — Determination of water vapour transmission rate — Gravimetric (dish) method.*

ISO 2808:—³⁾, *Paints and varnishes — Determination of film thickness.*

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7783. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7783 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 209-1:1989, *Wrought aluminium and aluminium alloys — Chemical composition and forms of products — Part 1: Chemical composition.*

ISO 483:1988, *Plastics — Small enclosures for conditioning and testing using aqueous solutions to maintain relative humidity at constant value.*

ISO 1512:1991, *Paints and varnishes — Sampling of products in liquid or paste form.*

ISO 3270:1984, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing.*

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

3 Definition

For the purposes of this part of ISO 7783, the following definition applies.

3.1 water-vapour transmission rate (of a coating):
The mass of water vapour that is transmitted over a given period through a test piece of a given surface area under specified constant conditions of relative humidity at each face of the test piece.

NOTE 1 Water-vapour transmission rate is expressed in grams per square metre per day [g/(m²·d)] at the conditions of relative humidity defined at the two faces of the coating.

2) This term is often confused with permeability or permeance, which have distinct definitions (see note 9 in subclause 11.3).

3) To be published. (Revision of ISO 2808:1991)