
**Merjenje povprečne viskozimetrične stopnje polimerizacije novih in starih
celuloznih elektroizolacijskih materialov (IEC 60450:2004)**

(istoveten EN 60450:2004)

Measurement of the average viscometric degree of polymerization of new and aged
cellulosic electrically insulating materials (IEC 60450:2004)

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EUROPEAN STANDARD

EN 60450

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2004

ICS 17.220.99; 29.035.01

English version

**Measurement of the average viscometric degree of polymerization
of new and aged cellulosic electrically insulating materials
(IEC 60450:2004)**

Mesure du degré de polymérisation
moyen viscométrique des matériaux
isolants cellulosiques neufs et vieillis
à usage électrique
(CEI 60450:2004)

Messung des durchschnittlichen
viskosimetrischen Polymerisationsgrades
von neuen und gealterten
cellulosehaltigen Elektroisierstoffen
(IEC 60450:2004)

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 15E/229/FDIS, future edition 2 of IEC 60450, prepared by SC 15E, Methods of test, of IEC TC 15, Insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60450 on 2004-06-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60450:2004 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60814	- 1)	Insulating liquids - Oil-impregnated paper and pressboard - Determination of water by automatic coulometric Karl Fischer titration	EN 60814	1997 2)
ISO 287	- 1)	Paper and board - Determination of moisture content - Oven-drying method	-	-
ISO 3105	- 1)	Glass capillary kinematic viscometers - Specification and operating instructions	-	-

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1) Undated reference.

2) Valid edition at date of issue.

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INTERNATIONALE
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STANDARD

CEI
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Deuxième édition
Second edition
2004-04

**Mesure du degré de polymérisation moyen
viscosimétrique des matériaux isolants
cellulosiques neufs et vieillis à usage électrique**

**Measurement of the average viscometric degree
of polymerization of new and aged cellulosic
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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MEASUREMENT OF THE AVERAGE VISCOMETRIC DEGREE OF POLYMERIZATION OF NEW AND AGED CELLULOSIC ELECTRICALLY INSULATING MATERIALS

FOREWORD

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International Standard IEC 60450 has been prepared by subcommittee 15E: Methods of test, of IEC technical committee 15: Insulating materials.

This second edition cancels and replaces the first edition, published in 1974, and constitutes a technical revision. Experience has indicated the need for improved description of the experimental method. It describes a revised procedure that overcomes the limitations of the first edition.

The text of this standard is based on the following documents:

FDIS	Report on voting
15E/229/FDIS	15E/235/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that this publication remains valid until 2008. At this date, in accordance with the committee's decision, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Experience has indicated the need for an improved description of the experimental method for the reproducible determination of the average viscometric degree of polymerization of new and aged cellulosic electrically insulating material.

The major error appears to arise from oxidative degradation occurring during processing and effluxing. Other significant factors include the need to ensure that all of the material is dissolved and used, as well as the effect of the speed of effluxing.

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