

## საქართველოს სტანდარტი

ახალი და ძველი ცელულოზური ელექტრო საიზოლაციო მასალების  
პოლიმერიზაციის საშუალო ვისკოზიმეტრული ხარისხის გაზომვა

საქართველოს სტანდარტებისა და მეტროლოგიის  
ეროვნული სააგენტო  
თბილისი

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2 მიღებულია თავფურცლის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 60450:2004/A1:2007 „, ახალი და ძველი ცელულოზური ელექტრო საიზოლაციო მასალების პოლიმერიზაციის საშუალო ვისკოზიმეტრული ხარისხის გაზომვა”

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აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით  
გავრცელება

June 2007

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/A1:2007)

Mesure du degré de polymérisation  
moyen viscosimétrique des matériaux  
isolants cellulosiques neufs  
et vieillis à usage électrique  
(CEI 60450:2004/A1:2007)

Messung des durchschnittlichen  
viskosimetrischen Polymerisationsgrades  
von neuen und gealterten  
cellulosehaltigen Elektroisolierstoffen  
(IEC 60450:2004/A1:2007)

This amendment A1 modifies the European Standard EN 60450:2004; it was approved by CENELEC on 2007-06-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**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 112/49/CDV, future amendment 1 to IEC 60450:2004, prepared by IEC TC 112, Evaluation and qualification of electrical insulating materials and systems, was submitted to the IEC-CENELEC Parallel Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 60450:2004 on 2007-06-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2008-03-01
  - latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2010-06-01
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## Endorsement notice

The text of amendment 1:2007 to the International Standard IEC 60450:2004 was approved by CENELEC as an amendment to the European Standard without any modification.

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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Measurement of the average viscometric degree of polymerization of new and aged cellulosic electrically insulating materials**

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







IEC 60450

Edition 2.1 2007-07

# INTERNATIONAL STANDARD

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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
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INTERNATIONALE

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **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.

This consolidated version of IEC 60450 consists of the second edition (2004) [documents 15E/229/FDIS and 15E/235/RVD] and its amendment 1 (2007) [documents 112/49/CDV and 112/66/RVC].

The technical content is therefore identical to the base edition and its amendment(s) and has been prepared for user convenience.

It bears the edition number 2.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

## 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.