INTERNATIONAL STANDARD

IEC 60371-3-5

Second edition
2005-11

Insulating materials based on mica –

Part 3:
Specifications for individual materials –
Sheet 5: Glass-backed mica paper with an epoxy resin binder for post-impregnation (VPI)

International Electrotechnical Commission, 3, rue de Varembé, 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

PRICE CODE L

For price, see current catalogue

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

INSULATING MATERIALS BASED ON MICA –

Part 3: Specifications for individual materials – Sheet 5: Glass-backed mica paper with an epoxy resin binder for post-impregnation (VPI)

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60371-3-5 has been prepared by IEC technical committee 15: Standards on specifications for electrical insulating materials.

This second edition cancels and replaces the first edition, published in 1992, and constitutes a technical revision.

The main changes with regard to the previous edition include adjustments needed to align this standard with changes included in the latest edition of IEC 60371-2.

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

FDIS	Report on voting
15/228/FDIS	15/246/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 2.

The committee has decided that the contents of this publication 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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

This part of IEC 60371 forms part of a series which deals with insulating materials built up from mica splittings or mica paper with or without reinforcement, and with mica paper in its pure state for use in electrical equipment..

IEC 60371 consists of three parts under the main title *Specification for insulating materials based on mica:*

Part 1: Definitions and general requirements

Part 2: Methods of test

Part 3: Specifications for individual materials

This standard contains one of the sheets comprising part 3, as follows:

Sheet 5: Glass-backed mica paper with an epoxy resin binder for post-impregnation (VPI – *vacuum pressure impregnation)*

INSULATING MATERIALS BASED ON MICA –

Part 3: Specifications for individual materials – Sheet 5: Glass-backed mica paper with an epoxy resin binder for post-impregnation (VPI)

1 Scope

This part of IEC 60371 gives requirements for electrical insulating materials made by combining mica paper with glass fabric and bonding them together with a small amount of epoxy resin. The material is supplied in a flexible state and is designed for use in conjunction with vacuum pressure impregnation (VPI) with compatible impregnates. The final cured properties will be primarily dependent on the VPI resin used.

Two bond contents are specified:

– low bond with a resin content of (8 ± 3) %;

– medium bond with a resin content of (16 ± 3) %.

Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application should be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

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.

IEC 60371-2:2004, *Specification for insulating materials based on mica – Part 2: Methods of test*

IEC 60371-3-2, *Insulating materials based on mica – Part 3: Specifications for individual materials – Sheet 2: Mica paper*

ISO 5636-5:2003, *Paper and board – Determination of air permeance and air resistance (medium range) – Part 5: Gurley method*