INTERNATIONAL STANDARD

IEC 60371-3-4

1992

AMENDMENT 1
2006-09

Amendment 1

Specification for insulating materials based on mica –

Part 3: Specifications for individual materials – Sheet 4: Polyester film-backed mica paper with a B-stage epoxy resin binder

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FOREWORD

This amendment has been prepared by IEC technical committee 15: Standards on specifications for electrical insulating materials.

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

FDIS	Report on voting
15/332/FDIS	15/347/RVD

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

The committee has decided that the contents of this amendment and the base 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- withdrawn,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.

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INTRODUCTION

Replace the existing text by the following new text:

This International Standard is one of a series which deals with insulating materials for use in electrical equipment built up from mica splittings or mica paper, with or without reinforcement, and with mica paper in its pure state.

The series consists of the following three parts:

Part 1: Definitions and general requirements (IEC 60371-1)

Part 2: Methods of test (IEC 60371-2)

Part 3: Specifications for individual materials (IEC 60371-3)

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

Sheet 4: Polyester film-backed mica paper with a B-stage epoxy resin binder.

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1 Scope

Insert the following two paragraphs after the existing paragraphs:

Materials which conform to this specification meet established levels of performance. However, the selection of materials 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.

Safety warning:

It is the responsibility of the user of the methods contained or referred to in this document to ensure that they are used in a safe manner.

2 Normative references

Replace the existing references by the following:

IEC 60243-1:1998, *Electric strength of insulating materials – Test methods - Part 1: Tests at power frequencies*

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

IEC 60371-3-2:2005, *Insulating materials based on mica – Part 3: Specifications for individual materials – Sheet 2: Mica paper*

IEC 60674-3-2:1992, *Specification for plastic films for electrical purposes – Part 3: Specifications for individual materials – Sheet 2: Requirements for balanced biaxially oriented polyethylene terephthalate (PET) films used for electrical insulation*

3 Designation

Replace the existing first two paragraphs by the following new paragraphs:

When ordering materials to this specification, only the specification and type numbers need be quoted (see Table 1).

Example: IEC 60371-3-4: type 4.1.01

The type number is derived from:

– the specification sheet number 4
– followed by the sheet table number 1
– followed by the number of the product in the sheet table 01

Thus giving type number 4.1.01.

The final paragraph and table remain unchanged.

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4 Requirements: raw materials

4.1 Mica paper

Replace the existing text of this subclause by the following new text:

Mica paper referred to in this specification shall comply with the requirements of IEC 60371-3-2.

4.2 Polyester film

Replace the existing text of this subclause by the following new text:

Plastic films used as backing material shall be PET and shall comply with the requirements of IEC 60674-3-2.

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5 Requirements: compositions and tolerances

Replace the existing text of this clause by the following new text:

When tested by the method of Clause 7 of IEC 60371-2, the composition of the products shall lie within the limits of Table 1.

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6.3 Thickness

Replace the first sentence by the following new sentence:

Measure the thickness in accordance with Clause 4 of IEC 60371-2, using the apparatus given in 4.1.1 of that standard, making 10 measurements of one thickness of material.

6.7 Stiffness

Replace the second sentence by the following new sentence:

When the stiffness is specified, the material should be tested by the method of Clause 11 in IEC 60371-2.

6.8 Resin flow

Replace the existing text of this subclause by the following new text:

When tested at (160 ± 2) °C by the method of Clause 14 of IEC 60371-2, resin flow shall be between 40 % and 70 %.

7.1 General

Replace the first sentence of the second paragraph by the following new sentence:

For the following tests, the specimens shall be prepared in accordance with method 1 of Clause 3 of IEC 60371-2, the number of layers being chosen to give a final thickness as required for the measurement of properties after curing.

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7.2 Flexural strength

Replace the first paragraph by the following new paragraph:

When tested by the method of Clause 9 of IEC 60371-2, the flexural strength shall be not less than 150 MPa at (23 °C ± 2 K) nor less than 100 MPa at (155 °C ± 5 K).

7.3 Elastic modulus

Replace the existing subclause by the following new subclause:

When tested by the method of Clause 9 of IEC 60371-2, the elastic modulus shall be not less than 30 GPa.

7.4 Electric strength

Replace the existing subclause by the following new subclause:

When tested by the method of Clause 16 of IEC 60371-2 with electrodes according to 4.1.1.1 (25/75 mm diameter) of IEC 60243-1, the electric strength shall be not less than 50 kV/mm.

7.5 Dissipation factor/temperature characteristics at 48-62 Hz

Replace the first paragraph by the following new paragraph:

When tested by the method of Clause 17 of IEC 60371-2, the dissipation factor shall not exceed the values stated in Table 3 at the temperature given.

7.6 Thermal endurance

Replace the first paragraph by the following new paragraph:

This shall be tested in accordance with Clause 21 of IEC 60371-2 using flexural strength at (23 °C ± 2 K) as the property with reduction of 50 % of the original value as the end point criterion.

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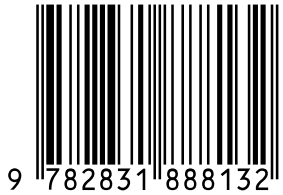

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