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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 5019.7-2009

**Insulating materials based on mica -- Part 7: Glass-backed and
film-backed mica paper with an epoxy resin binder for vacuum
pressure impregnation (VPI)**

以云母为基的绝缘材料 第7部分：真空压力浸渍（VPI）用玻璃布及薄膜补强环氧
树脂粘合云母带

(English Translation)

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Foreword

GB/T 5019 "with mica-based insulating materials" is divided into the following sections.

- Part 1. Definitions and general requirements;
- Part 2. Test methods;
- Part 3. Commutator separators and materials;
- Part 4. Mica paper;
- Part 5. electric equipment mica plate;
- Part 6. Polyester film reinforced B stage epoxy resin binder;
- Part 7. vacuum pressure impregnation (VPI) film reinforced with glass cloth and epoxy resin binder;
- Part 8. Glass fabric reinforcement B stage epoxy resin binder;
- Part 9. single wire wrapped with epoxy polyester film mica;
- Part 10. fire-resistant safety cables mica;
- Part 11. plastic mica plate.

This section GB/T 5019 Part 7.

The partial modification of the use of IEC 60371-3-5:2005 (2nd edition) "In mica-based insulating materials - Part 3. Specifications for individual materials Regulation Fan Section 5. After impregnation (VPI) with a glass cloth reinforced epoxy adhesive mica paper "(in English).

This section according to IEC 60371-3-5:2005 redrafted. Taking into account China's national conditions, in using IEC 60371-3-5:2005, the present Part made some changes. About the technical differences in terms of which they are involved in the margin of a single vertical line identified by.

This part of IEC 60371-3-5:2005 differences are as follows.

- 1) Remove IEC 60371-3-5:2005 Foreword;
- 2) to increase the adhesive film as the reinforcing material mica;
- 3) consideration of our country does not use IEC 60371-3-5:2005 Type of product naming;
- 4) increase the "edge camber" and "dielectric strength" performance, and other performance requirements made the corresponding modifications;
- 6) A "inspection rules" chapter;
- 7) increase of the applicable content and storage conditions.

This part is proposed by the China Electrical Equipment Industrial Association.

This part of the National Standardization Technical Committee of the insulating material (SAC/TC51) centralized.

This part mainly drafted by. Suzhou Jufeng Insulation Materials Co., Ltd. Shanghai Xinyi Insulation Materials Co., Sichuan East wood science and technology collection Group Co., Ltd., Shanghai Science and Technology Development Co., Ltd. reached, Xian Xi, electrical materials Co., Ltd., Jiangsu Bard shares have electrical material Ltd., Zhejiang Rongtai Technology Enterprise Co., Ltd., Wujiang Taihu insulation material factory, Harbin celebrate edge electrical materials limited liability company, the State must Insulating material Engineering Research Center, Guilin Institute of Electrical Science.

1 Scope

This section GB/T 5019 specifies the vacuum pressure impregnation (VPI) with a glass cloth reinforced epoxy resin binder and the film's stars Class, performance requirements, test methods, inspection rules, marking, packaging, transportation and storage.

This section applies to the mica paper as base material for the adhesive paint with epoxy adhesive, single or double to electrical alkali-free glass cloth or film is Reinforcing material, is flexible under normal use is compatible with the resin-impregnated by vacuum pressure impregnation insulation treatment process after curing the adhesive Mica co. Final cured properties of materials will depend largely vacuum pressure impregnating resin used.

2 Normative references

The following documents contain provisions which, through reference to GB/T 5019 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 5019.1-2009 mica-based insulating materials - Part 1. Definitions and general requirements (IEC 60371-1:2003, IDT) GB/T 5019.2-2009 mica-based insulating materials - Part 2. Test methods (IEC 60371-2:2004, MOD) GB/T 5019.4-2009 mica-based insulating materials - Part 4. mica paper (IEC 60371-3-2:2005, MOD) GB/T 5402-2003 Paper and board - Determination of air permeability (medium range) Gurley GB/T 13542.4-2009 Film for electrical insulation - Part 4. Polyester film (IEC 60674-3-2:1992, MOD) Category 3 this part of the product according to the structure and content of the division of plastic models, product model are shown in Table 1.

Table 1 Model

Model reinforcing material content% range Adhesives 5442-1D (G) single-sided electrical alkali-free glass cloth epoxy resin 5 to 11 5444-1S (G) 5445-1S (G) Sided electrical alkali-free glass cloth Tong Ma anhydride epoxy adhesive paint 17 to 23 Boron amine epoxy adhesive paint 24-32 5442-1D (P) single-sided epoxy polyester film for electrical 3 to 9 5448-1S (P/G) Side electrical polyester film, Other side of the electrical alkali-free glass cloth an epoxy resin 7 to 13 Suitable for working temperature 155 °C Large and medium-sized high-voltage motors true Air pressure impregnation insulation Note. The table represents one-sided reinforcement D, S said double-sided reinforcement; G denotes a glass fabric reinforcement, P represents the film reinforcement.