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

**GB/T 8411.3-2009**

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**Ceramic and glass insulating materials -- Part 3: Specifications  
for individual materials**

陶瓷和玻璃绝缘材料 第3部分：材料性能

**(English Translation)**

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### Foreword

GB/T 8411 "Ceramic and glass insulating materials" is divided into three parts.

--- Part 1. Definitions and classification;

--- Part 2. Test methods;

--- Part 3. Material properties.

This section GB/T 8411 Part 3.

The partial modification using IEC 60672-3:1997 "Ceramic and glass insulating materials - Part 3. Materials Performance" (in English).

Chapter of this part of the number, structure and standard IEC 60672-3:1997 correspond exactly.

Terminology used in this section, symbols, units with IEC 60672-3:1997 agreement.

The portion of the IEC 60672-3:1997 The main differences are.

--- Remove the IEC 60672-3:1997 Foreword;

--- With a decimal point instead of a comma as the decimal point, ",";

--- Increase in the group table 1C100 C121 subgroups and increase the relational tables note illustrated with original classification.

Increased C121 subgroup reason. C121 porcelain in strength aluminum widely used in our country, but IEC 60672 to roughly classified as C120, will produce inconvenient in actual use. Increased C121 subgroup aluminum porcelain, technical parameters corresponding to GB/T 8411.1-1987IV class porcelain Technical parameters.

This standard replaces GB "porcelain materials," compared with the GB/T 8411-1987 T 8411-1987 major changes are as follows.

--- The original standard name "porcelain material" in accordance with IEC 60672 with "ceramic and glass insulating materials."

--- To meet the target text mining needs, according to the structure of the IEC 60672,

modified the original two into three parts.

--- The scope of application of GB/T 8411 from pure porcelain electrical insulation material extends to the cloud with a ceramic, glass ceramic, glass combined Mother and glass materials.

This Part replaces GB/T 8411.1-1987. Material Properties section "porcelain material of the first part of the definition, classification and Performance" in.

Section compared with the GB/T 8411.1-1987 The main changes are as follows.

--- On the type of material, totally according to IEC 60672-3 type of material from the original single standard electrical porcelain ceramic material must expand into nine categories Insulating material and glass insulating material of Class 7;

--- The terminology and the unity of the same profession or trade, such as "thermal shock resistance", "electric strength" and so on;

--- Classified material numbers to be consistent with IEC 60672.

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

The insulators in part by the National Standardization Technical Committee (SAC/TC80) centralized.

This section is drafted. Xi'an Institute of Electric porcelain, high-voltage electrical Xi'an limited liability company, the Nanjing Electric Group Co., Ltd., Hunan University, Fushun Electric Porcelain Manufacturing Co., Ltd., Dalian Insulator Co., Ltd.

## 1 Scope

This section GB/T 8411 specifies the minimum performance parameters and characteristics of all types of ceramic and glass insulating materials.

GB/T 8411 This section applies to the electrical insulation of ceramic, glass ceramic, glass, mica and glass materials combined. As a guide, this Section lists the general classification of electrical insulation materials, and also lists each sub-Test Method GB/T 8411.2 predetermined measurement of Typical values group or type of material performance related. These values apply only to a particular sample and test methods, of course, can not promote the use of Samples and other products in the shape, size or production prepared.

## 2 Classification, characteristics, minimum performance parameters

Typical values of the respective sub-group (or type) material properties are listed in the tables, Table 1 shows the performance parameters of a variety of ceramic insulating material, and Table 2 Combining performance parameter mica insulation material is glass

and glass ceramics, glass performance parameters of Table 3 for the insulating material.

In material applications, there are often some of the more important features, and these features constitute the most basic requirements of the material properties of the table there Boldface underlined that this kind of performance parameters.

Certain properties to use "maximum" or "minimum" indicate, these properties are usually extremely important in a reasonable choice of insulating material. therefore these features suggested as a key index.

Consistent with the standards required by this part of the material meets the criteria of this part of the given characteristic level. Characteristic level is measured on the specimen junction as a result, the choice of suitable materials. However, when the user the choice of materials should be based on the actual application requirements necessary for a particular application OK, but it can not be determined solely according to the criteria of this section.