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

GB/T 10580-2015

Replacing GB/T 10580-2003

**Standard conditions for use prior to and during the testing of
solid electrical insulating materials**

固体绝缘材料在试验前和试验时采用的标准条件

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 10580-2003 "standard conditions and solid insulating materials used in the test before the test" and GB/T 10580-2003 Compared to the main technical changes are as follows.

--- The "Overview" As an introduction listed separately (see Introduction, Chapter 1 of the 2003 edition);

--- On the "scope" is further described (see Chapter 1, Chapter 2 of the 2003 edition);

--- Added "Normative references" (see Chapter 2);

--- Increasing the "insulation material", "sample", "container", "workspace", "conditional processing cycle", "restore", "vapor pressure", "saturated steam Pressure", "aging" of nine terms and definitions (see Chapter 3);

--- Added "Report" (see Chapter 10);

--- Amend Table 2 of "temperature", "relative humidity" part deviation range (see Table 2).

This standard uses the translation method identical with IEC 60212:2010 "standard conditions and solid insulating materials used in the test before the test." Correspondence

between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 11026.4-2012 heat resistance, electrical insulating materials - Part 4. Ageing ovens - Single Room (IEC 60216-4-1:2006, IDT).

The standard proposed by China Electrical Equipment Industrial Association.

This standard by the National Electrical insulation materials and insulation systems assessment Standardization Technical Committee (SAC/TC301) centralized.

This standard was drafted. Guilin Electric Apparatus Research Institute Co., Ltd., Shunde District of Foshan City of Quality and Technology Supervision of standards and codes, mechanical Industrial Electrical Technology Beijing Institute of Economic Research.

Introduction

Some performance of most insulating materials which by its temperature atmospheric environment, humidity or temperature and humidity combined action, Therefore, when the solid insulating material tested in the test sample should be controlled before subjected to environmental conditions (such as temperature and humidity) and the actual Environmental conditions of the test. According to the material specification and intended use to select the appropriate test conditions and treatment conditions, unless otherwise specified, the environmental conditions should be the same when the condition of the sample processing and testing.

For the above-mentioned factors may be affected by an insulating material, it should be given their test results at the same time a description of the sample exposed strip Parts, so such materials should be standardized before the test sample was exposed to the atmospheric conditions and the specimen which when tested provisions.

Solid insulating material before the test and Standard test conditions employed

1 Scope

This standard specifies the acceptable conditions of solid insulating materials test specimen exposure time, temperature, humidity and atmospheric immersion, scope foot Wide enough to ensure that we have chosen for the right conditions, so as to achieve a) or b) any purpose.

To get better reproducibility of test results.

a) part of the impact of the elimination of the test sample before the environmental conditions experienced by the sample properties (usually called "normalization process" of this standard Called pre-treatment);

b) to ensure consistent conditions during the test.

This standard does not apply to determine the influence of certain temperatures and humidity or immersion of the material, GB/T 2421.1-2008 gives the environment and Movies Sound procedures related material.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1034-2008 Plastics Determination of water absorption (ISO 62:2008, IDT) GB/T 2421.1-2008 Environmental testing for electric and electronic products overview and guidance (IEC 60068-1. 1988, IDT) IEC 60216-4-1 Electrical insulating materials - Thermal resistance - Part 4-1. Ageing ovens - Single - chamber ovens (Electricalinsulating materials-Thermalenduranceproperties-Part 4-1. Ageingovens-Single-chamberovens)

3 Terms and Definitions

The following terms and definitions apply to this document.

Insulation material insulatingmaterial Having negligible low conductivity of the solid material used to isolate the potential of different conductor portions.

Note 1: In English, "insulating material" is sometimes also referred to a wide range of meaning insulating liquids and gases.

Note 2: The insulation material may be a solid, liquid or gas, or a combination thereof, the present standard only relates to a solid insulating material.

Specimen

Standard samples used in the test insulating materials related test specification describes.

Preconditioning in order to eliminate or partly eliminate the test specimen before experiencing environmental conditions (mainly temperature and humidity) on the performance of the sample handling method.

Note 1: This process is sometimes referred to as "normalization process."

Note 2: The pre-treatment is usually conditional processing before the sample is carried out. When the temperature and humidity conditions for handling and pretreatment temperature and humidity are the same, you can the pre-treatment and conditions of the merger process, can also be replaced by preprocessing conditional processing.

Note 3: Other conditions may be affected by the pretreatment environment, electricity or the relevant test specifications required in the sample which effects adjustment.