

ICS 29.035.99

CCS K 15



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

GB/T 10582-2008

Replacing GB/T 10582-1989

**Electrical insulating materials -- Determination of electrolytic
corrosion caused by insulating materials-test methods**

电气绝缘材料 测定因绝缘材料引起的电解腐蚀的试验方法

(English Translation)

Issued on: December 31, 2008

Implemented on: November 1, 2009

Issued by: Standardization Administration of China

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Foreword

This standard is identical with IEC 60426:2007 (2nd edition) "Determination of electrically insulating material with insulating materials caused by electrolytic corrosion test Test method "(in English).

This standard is technically and IEC 60426:2007 (2nd edition) agreement, only made the following editorial changes.

--- Remove IEC 60426:2007 Foreword and Introduction, increasing the national standards foreword;

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

--- With "°C" instead of "K";

--- In the second chapter of normative references, the IEC 60454-2 rewritten as GB/T 20631.2-2006.

This standard replaces GB/T 10582-1989 "Standard Test Method for Determination of electrolytic corrosion caused by insulating materials." this standard compared with GB/T 10582-1989 main changes are as follows.

--- Increasing the normative references;

--- Increasing the terms and definitions;

--- Remove the original meaning of the standard (GB/T 10582-1989 Chapter 2);

--- The visual semi-quantitative and quantitative methods (tensile strength test) to replace the original combination of the standard visual method, and to increase the corrosion level judgment Plus the tensile strength;

--- Remove the insulation resistance of the original standard method (GB/T 10582-1989 Chapter 5);

--- Pickling solution instead of the original standard requirements;

--- With (120 ± 5) V DC power supply instead of the original standard of (100 ± 5) V DC power supply;

--- Corrosion level representation has changed.

Appendix A of this standard is a normative appendix, Appendix B and Appendix C are informative appendices.

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 Institute of Science, Technology Electrical Machinery Industry Beijing Institute of Economic Research.

1 Scope

This standard applies to insulating materials in electrical stress, high humidity, high temperatures and affect the determination of the lower metal contact conditions of electrolytic corrosion.

An experimental evaluation of the degree of electrolytic corrosion is assessed by two methods of continuous tests.

a) visual semiquantitative method by comparing the positive electrode and the negative electrode metallic foil metal foil corrosion appearance (given with reference to FIG) judgment of. Test is two copper foil tape were used as positive and negative electrodes, put them in contact with the material being tested, at a predetermined ring Under ambient conditions plus DC potentiometer, direct visual comparison of the positive signs of corrosion and metal foil tape given with reference to FIG been evaluated the degree of corrosion.

b) quantitative method is to use the same visual method after the positive electrode and the negative electrode metallic foil metal foil tensile strength test.

Another test is to assess the degree of electrolytic corrosion of copper quantitative measurement of tensile strength, see Appendix C.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Test Method. GB/T 20631.2-2006 Electric Part 2 with pressure-sensitive adhesive tapes (IEC 60454-2:1994, IDT) IEC 60068-3-4:2001 Environmental testing - Part 3-4. supporting documents and guidance damp heat test

3 Terms and Definitions

The following terms and definitions apply to this standard.

Electrolytic corrosion in high humidity, high temperature conditions in the DC voltage and the combined effects of certain substances including organic substances galvanic corrosion.

- a) positive in the metal - insulator bonding foil test system connected to the positive DC power supply as the positive electrode.
- b) negative Metal - negative test foil insulation material contacts the system connected to the DC power supply as the negative electrode.
- a) with the test material of tested material Insulating materials in direct contact with the sample test foil section.
- b) a metal foil of metal strip Foil test positive or negative in direct contact with the insulating material portion of the sample.

4 Summary of Test Method

Test requirements under specified environmental conditions and in parallel spaced plus DC potentiometer on the positive and negative copper foil 3mm. Sample GB/T 10582-2008/IEC 60426:2007