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

GB/T 8287.1-2008

Replacing GB 12744-1991; GB 8287.1-1998

**Indoor and outdoor post insulators for systems with nominal
voltage greater than 1000 V -- Part 1: Test on insulators of
ceramic material or glass**

标称电压高于1000V系统用户内和户外支柱绝缘子 第1部分：瓷或玻璃绝缘子的
试验

(English Translation)

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Foreword

GB/T 8287 "nominal voltage greater than 1000V system and outdoor post insulators" currently consists of two parts.

- Part 1. Test porcelain or glass insulators;
- Part 2. Dimensions and characteristics.

This section GB/T 18287 Part of.

The partial modification of the use of IEC 60168:2001 "nominal voltage greater than 1000V system and outdoor post insulators of porcelain or glass Test "(in English).

This section and the IEC 60168:2001 technical differences in terms of which they are involved in the margin of a single vertical line identification, Appendix C gives the list of technical differences and their causes, given in Appendix D of this section and the IEC 60168:2001 clauses table.

For ease of use, this section also made the following editorial changes.

- a) "this International Standard" be replaced by "this section";
- b) use a decimal point instead of a decimal point ",", ". ", ";
- c) Remove the preface to international standards and references.

This section consolidates and replaces GB 12744-1991 "Fog type outdoor post insulators of ceramic rod" portion and technical conditions GB 8287.1-1998. Content "High voltage post insulators of the first part of the technical conditions".

The main difference between this part and GB 8287.1-1998 include.

--- Text format, layout, and other clauses in full accordance with IEC 60168:2001, and GB 8287.1-1998 is completely different;

--- The main characteristics of post insulators characterized by a rated voltage to impulse voltage;

--- The number of samples from the original mechanical type test of three to one;

--- Sampling test rules and procedures in accordance with IEC system, no longer used the piece of secondary test procedures. If the number of the test is greater than or equal to 3 when mechanical failure test is no longer using $AQL = 2.5\%$ of the measured secondary test procedures;

--- Although the stack-mounted cylindrical post insulators rarely used in our country, but considering the inclusion of such insulators IEC 60168, in order to maintain the integrity of the standard text of this part it is still included in this type of insulator;

--- Canceled expressed in GB 8287.1-1998 II grade product not creepage distance limit prescribed;

Porosity Test --- methine dye in methanol or ethanol fuel ethanol solution changed from magenta;

Scope --- this section extends to the UHV to adapt to the development of UHV products.

This part of the Annex A, Annex B, Annex C and Annex D are informative appendices.

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 part mainly drafted by. West An Shuangjia high-voltage ceramic Electric Co., Ltd., Xi'an Institute of electrical porcelain, high-voltage Tangshan Co., Suzhou Electric Porcelain Co., Ltd., Xi'an high-voltage electrical porcelain limited liability company, the National Insulator arrester Quality Supervision and Inspection Center.

1.1 Purpose and Scope

This section GB/T 8287 is suitable for AC nominal voltage above 1000V, not more than 100Hz frequency electrical devices or equipment Indoor and outdoor post insulators and ceramic or glass element.

DC system with post insulator can be performed with reference to this section.

This section does not apply to composite insulators for indoor post insulators or organic material.

The purpose of this section is.

- Definitions of the terms used;
- Provisions electrical and mechanical characteristics of post insulators;
- Predetermined characteristic values and validation criteria;
- Specified test methods;
- Specified acceptance criteria.

Post insulators characteristic values specified in GB/T 8287.2-2008 in.

This section does not include the special operating conditions of post insulators selection requirements.

Note 1: filthy conditions insulator selection see IEC 60815.

Note 2: This section does not include radio interference tests, the test methods, see JB/T 3567-1999.

Note 3: if the section is used to hollow post insulator, should also consider the requirements of IEC 62155.

1.2 Normative references

The following documents contain provisions which, through reference to GB/T 8287 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 311.1-1997 insulation with high voltage power transmission equipment (neq IEC 60071-1:1993) GB/T 494-1998 Building bitumen GB/T 2900.8 Electrotechnical terminology insulator (GB/T 2900.8-1995, mod IEC 60050-471) GB/T 4585-2004 high-voltage insulators for ac systems - Artificial pollution tests (IEC 60507:1991, IDT) GB/T 8411.1-2008 ceramic and glass insulating materials - Part 1. Definitions and classification (IEC 60672-1:1995, MOD) GB/T 8411.3-2008 ceramic and glass insulating materials - Part 3. material properties (IEC 60672-3:1997, MOD) GB/T 8287.2-2008 nominal voltage greater than 1000V system and outdoor post insulators - Part 2. Dimensions and Characteristics (IEC 60273:1990, MOD) GB/T 16927.1-1997 high voltage test techniques - Part 1. General test requirements (eqv IEC 60060-1: 1989) GB/T 19001 quality management system requirements (GB/T 19001-2000, idt ISO 9001:2000) JB/T 3567-1999 Test method for high-voltage insulators radio interference (mod IEC 60437:1997) JB/T 4307-2004 insulators fitted with rubber cement glue