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

**GB/T 1303.9-2009**

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**Industrial rigid laminated sheets based on thermosetting resins  
for electrical purposes -- Part 9: Requirements for rigid  
laminated sheets based on polyimide resins**

电气用热固性树脂工业硬质层压板 第9部分：聚酰亚胺树脂硬质层压板

**(English Translation)**

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### Foreword

GB/T 1303 "thermosetting resins for electrical industrial rigid laminated board", is divided into the following sections.

- Part 1. Definitions, designations and general requirements;
- Part 2. Test methods;
- Part 3. Industrial rigid laminated board model;
- Part 4. rigid epoxy laminates;
- Part 5. rigid melamine resin laminate;
- Part 6. rigid phenolic resin laminate;
- Part 7. Polyester resin rigid laminates;
- Part 8. rigid silicone resin laminate;
- Part 9. rigid polyimide resin laminate;
- Part 10. bismaleimide rigid laminates;
- Part 11. Polyamide-imide resin rigid laminates;

This part of GB/T 1303 Part 9.

The partial modification of the use of IEC 60893-3-7:2003 (2nd edition) "thermosetting resins for electrical industrial rigid laminated sheets - Part 3. Single Materials Specifications Item 7. polyimide resin laminate rigid requirements "(in English) of the relevant content.

This section 60893-3-7 and IEC .2003 The differences are as follows.

- a) Remove the IEC 60893-3-7 in the "Preface" and "Introduction", the introduction of this part of the content into "foreword" in;
- b) of Chapter 1, "program" has been modified, deleted the material meets note, increasing the scope of application;

- c) delete the dimension in Chapter 3 of labeling information;
- d) according to the actual situation needs, supplemented with "apparent flexural modulus of elasticity," "vertical layer to the compression strength", "parallel to the shear layer Strength "," Tensile Strength "," adhesive strength "," 1MHz lower dielectric loss factor "," 1MHz dielectric constant "," resistance to tracking Index "," Temperature Index "and" density "of performance requirements related to technical differences in the terms they are involved in the margin A single vertical line identification;
- e) The "Requirements" chapter of the press, "look", "size" and "flatness", "performance requirements," points written in the "supply requirements" as a separate chapter Write, while IEC 60893-3-7:2003 in Table 5 were modified, the contents of the memo included in this section of Table 6 Table Notes will IEC 60893-3-7:2003 Table 5 - Test methods included in this section reg Chapter 5, "test" rewrite and adds Test methods and cut slats General;
- f) Remove the IEC 60893-3-7:2003's "References." 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. Beijing Fu Runda new insulation material limited liability company, Xi'an Electric Electrical Materials Co., Ltd., Guangxi Lin Electric Institute of Science.

Drafters of this section. Liu Qihuan, Duchao Yun, Luo Zhuanyong.

This section first formulated.

Thermosetting resins for electrical industrial rigid laminated sheets Part 9. rigid polyimide resin laminate

## 1 Scope

GB/T 1303 This section specifies the name of the group of industrial rigid laminated sheets of electrical polyimide resin and reinforcing material is different, Requirements, test methods and delivery requirements.

This section applies to glass cloth as a base material, a polyimide resin binder formed by hot pressing a polyimide resin rigid laminate.

Their uses and characteristics are shown in Table 1.

## 2 Normative references

The following documents contain provisions which, through GB/T reference in this 1303 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 1303.1-2009 thermosetting resins for electrical industrial rigid laminated sheets - Part 1. Definitions, designations and general requirements (IEC 60893-1:2004, IDT) GB/T 1303.2-2009 Electrical thermosetting resins - Part 2 - Industrial rigid laminated sheets. Methods of test (IEC 60893-2.

2003, MOD)

### 3 Name

This section relates to the laminate according to the resin used and reinforced materials and different characteristics plate is divided into various models. Various boards the name constructed as follows.

- Number of national standards;
- Behalf of resin-letter abbreviation;
- Representative Reinforcements second two-letter abbreviation;
- Serial Number.

Name Example. PIGC301 industrial rigid laminated sheets, the name is. GB/T 1303.9-PIGC301 the following abbreviations are used in this specification.

Reinforced resin type material type PI polyimide GC (textile) glass cloth

Table 1 Industrial rigid polyimide resin laminate models

Uses and characteristics of a model PIGC301 mechanical and electrical use. Mechanical and electrical properties at high temperatures better not from a table Corollary 1. any specific type of laminate certainly does not apply to use is not listed, or a particular laminate is suitable for the large A variety of purposes in the range.