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

GB/T 1303.8-2009

**Industrial rigid laminated sheets based on thermosetting resins
for electrical purposes -- Part 8: Requirements for rigid
laminated sheets based on silicone resins**

(English Translation)

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Foreword

GB/T 1303 "Industrial rigid laminated sheets based on thermosetting resins for electrical purposes" includes the following several parts.

- Part 1.Definitions,designations and general requirements;
- Part 2.Test methods;
- Part 3.Requirements for types of industrial rigid laminated sheets;
- Part 4.Requirements for rigid laminated sheets based on epoxy resins;
- Part 4.Requirements for rigid laminated sheets based on melamine resins;
- Part 6.Requirements for rigid laminated sheets based on phenolic resins;
- Part 7.Requirements for rigid laminated sheets based on polyester resins;
- Part 8.Requirements for rigid laminated sheets based on silicone resins;
- Part 9.Requirements for rigid laminated sheets based on polyimide resins;
- Part 10.Requirements for rigid laminated sheets based on bis-maleimide resins;
- Part 11.Requirements for rigid laminated sheets based on polyamide-imide resins;

...

This Part is part 8 of GB/T 1303.

This Part equivalently adopts IEC 60893-3-6.2003 "Specification for industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 3.

Specifications for individual materials - Sheet 6.Requirements for rigid laminated sheets

based on silicone resins" (English version)

The editorial differences between this Part and IEC 60893-3-6.2003 are as follows.

- a) Delete the "Foreword" and "Introduction" in IEC 60893-3-6.2003; incorporate the introduction into the "Foreword" of this Part;
- b) Modify the "Scope" in Chapter 1; delete the declaration of conformity related to materials; add the scope of application;
- c) Delete the size marking in the name examples in Chapter 3;
- d) Compile Chapter 1 "Requirements" according to articles "Appearance", "Size", "Flatness" and "Performance Requirements"; compile "Supply Requirements" as an independent chapter; modify table 5 in IEC 60893-3-6.2003; the content of NOTE is put into the table's note; Table 5's "Test Method" is re-drafted as Chapter 5's "Test Method"; add test methods and general provisions of cutting plate-strips;
- e) Delete the bibliography of IEC 60893-3-6.2003.

This Part replaces GB/T 4206-1984 "Silicone resin glass laminated sheets".

The main differences of GB/T 4206-1984 and this Part are as follows.

- a) In "Foreword", this Part lists out the composition of the standard series of industrial rigid laminated sheets based on thermosetting resins for electrical purposes;
- b) Add detailed provisions of "Designation Composition", "Resin Types" and "Reinforcement Types" of laminated sheets in Chapter 3 "Classification"; specifically add all types of industrial rigid laminated sheets based on silicone resins, not only SIGC 201 type;
- c) Specify thickness tolerances according to different types;
- d) Add tolerance requirements of laminated sheets of nominal thickness above 25mm;
- e) Add property requirements such as "Parallel Cantilever Beam Impact Strength", "Vertical Electrical Strength (in 90°C oil)", "Dielectric Constant (48Hz~62Hz)", "Dielectric Loss Factor (48Hz~62Hz) and "Combustibility";
- f) Delete the description of "Test Methods" in GB/T 4206-1984; list out the corresponding chapter numbers into table 5 "Performance Requirements" of this

Part.

This Part was proposed by China Electrical Equipment Industry Association.

This Part shall be under the jurisdiction of National Technical Committee on Insulating Material of Standardization Administration of China (SAC/TC 51).

The drafting organizations of this Part are Xi'an XD Electrical Material Co.,Ltd., EM Technology Co.,Ltd., Beijing New Friend Insulation Material Co., Ltd., and Guilin Electric Appliance Science Research Institute.

Main drafters of this Part. Du Chaoyun, Zhao ping, Liu Qihuan, and Luo Chuanyong.

Previous version replaced by this Part is as follows.

- GB/T 4206-1984.

Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 8. Requirements for rigid laminated sheets based on silicone resins

1 Scope

This Part of GB/T 1303 specifies the classification requirements of industrial rigid laminated sheets based on silicone resins and different reinforcements for electrical purposes.

This Part applies to industrial rigid laminated sheets based on epoxy resin and different reinforced materials. Their purposes and features are shown in table 1.

2 Normative references

The articles contained in the following documents have become part of this Part of GB/T

1303 when they are quoted herein. For the dated documents so quoted, all the

modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Part. For the undated documents so quoted, the latest editions shall be applicable to this Part.

GB/T 1303.1-2009 Industrial rigid laminated sheets based on thermosetting resins for

electrical purposes - Part 1. Definitions, designations and general requirements (IEC 60893-1.2004, IDT)

GB/T 1303.2-2009 Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 2. Test methods (IEC 60893-2.2003, MOD)

3 Designation

The sheets covered by this specification are classified into types, which differ in the reinforcement employed and in their distinguishing properties. The sheets are designated by

- the GB standard number;
- a two-letter abbreviation, denoting the resin;
- a second two-letter abbreviation denoting the reinforcement;
- a serial number;

Example of designation. Industrial rigid laminated sheet of type SI GC 201, the name for

5.1 General Provisions

Tests falls into delivery inspection and type inspection. Delivery inspection involves "bending strength" and "vertical electrical strength" in table 6 in 4.1, 4.2, 4.3 and 4.4, and type inspection involves all performance items.

5.2 Appearance

Visual inspection.

5.3.1 Thickness

In accordance with 4.1 in GB/T 1303.2-2009.

5.3.2 Width and Length

Use a ruler or an instrument of 0.5mm scale to measure at least three points and report the average.