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

GB/T 1303.6-2009

**Industrial rigid laminated sheets based on thermosetting resins
for electrical purposes -- Part 6: Requirements for rigid
laminated sheets based on phenolic resins**

电气用热固性树脂工业硬质层压板 第6部分：酚醛树脂硬质层压板

(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 section GB/T 1303 Part 6.

The partial modification of the use of IEC 60893-3-4:2003 (2nd edition) "thermosetting resins for electrical industrial rigid laminated sheets - Part 3. Single Materials Specifications Item 4. phenolic resin laminate rigid requirements "(in English).

This section 60893-3-4 and IEC .2003 The differences are as follows.

- a) Remove the IEC 60893-3-4:2003 "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 name Chapter 3. Examples of dimensioning content;

d) according to the actual needs of the country, supplemented with tolerance performance laminate raw plate width, length; PFCP type updated the "apparent Flexural modulus of elasticity, "" vertical layer to the compression strength, "" parallel layer to shear strength "," tensile strength "," adhesive strength "," frequency Dielectric loss factor, "" frequency dielectric constant "," 1MHz lower dielectric loss factor "," 1MHz dielectric constant "," resistance to tracking Index "and" density "of the performance requirements; PFCC type Added the" apparent flexural modulus of elasticity "," shear strength parallel to the layers, "" pull Tensile strength "," adhesive strength "," frequency dielectric constant "," resistance to tracking index "and" density "of performance requirements related to technical difference They are involved in different terms in the margin of 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 60893-3-4:2003 in Table 5 were modified, the contents of the memo included in the Notes to Table; Table 5 Test side Chapter 5, "test" into the law reg rewritten and adds test methods slats;

f) Remove the IEC 60893-3-4:2003 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 materials Co., Ltd., Sichuan Material Technology Group Co., East, West Anxi Power Electrical Engineering Materials Co., Ltd., National Engineering Research Center of insulating material, Guilin Institute of Electrical Science.

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

This section first formulated.

Thermosetting resins for electrical industrial rigid laminated sheets Part 6. rigid phenolic resin laminate

1 Scope

GB/T 1303 provisions of this part of the classification of phenolic resin as binder rigid laminate, requirements and test methods.

This section applies to cotton, cellulose, paper, glass cloth, wood plywood for the substrate to phenolic resin binder formed by hot pressing each Phenolic resin rigid laminate. Their uses and characteristics are shown in Table 1.

2 Normative references

The following documents contain provisions cited by GB/T 1303 and become part of the provisions of this section. For dated references, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encourage the agreement on this section Whether the parties can study 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)

Category 3

This section relates to laminate the resin used and enhanced by the different materials and different characteristics of the 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. PFCCP201 industrial rigid laminated sheets, name. GB/T 1303.6-PFCCP201 the following abbreviations are used in this section.

Reinforced resin type material type PF phenolic CC (Textiles) cotton CP cellulose paper GC (textile) glass cloth WV Wood Plywood

Table 1 Industrial rigid phenolic resin laminate models

Laminate Model

Resin reinforcing material series Use and characteristics a PF CC 201 machinery. Representing PFCC202 type good mechanical properties, but its relatively poor electrical performance 202 mechanical and electrical use Machinery. Recommended for the production of small parts. Representing PFCC204 type good mechanical properties, but Electrical performance is poor compared with its