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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 18373-2013

Replacing GB/T 18373-2001

E-glass fabric woven for printed boards

印制板用E玻璃纤维布

Issued on: November 27, 2013 **Implemented on: August 1, 2014**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine;
Standardization Administration of the PRC

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 18373-2001 "PCB with E glass fiber cloth," compared with the GB/T 18373-2001, mainly within Yung changes are as follows:

--- Increasing the product specifications (see Table 1);

--- Increasing the thickness requirements (see 5.3);

--- Increasing the moisture requirements (see 5.5);

--- Increase the tensile breaking strength requirements (see 5.7);

--- Deleted version of the 2001 Information Appendix A PCB with E glass fiber cloth Appendix B glass-related terms and definitions and informative Yarn code. The standard proposed by China Building Materials Federation. This standard by the National Standardization Technical Committee fiberglass (SAC/TC245) centralized. This standard is drafted by: Nanjing Fiberglass Research and Design Institute Limited, the national glass fiber product quality supervision and inspection center, Taiwan Glass Fiber Co. Kerry. The main drafters of this standard. Fang Yunwei, Wang Yumei, Huang Ying, Xu Min, Hao Zheng Tao, Xu Qi, Madan. This standard replaces the standards previously issued as follows:

--- GB/T 18373-2001. PCB with E glass fiber cloth

1 Scope

China's national product standard for the E-glass fabric used as the reinforcement in printed circuit board laminate. It specifies the definitions, the codes and specifications, the requirements, the test methods, the inspection rules, and the marking, packaging, transport and storage, and it applies to plain-weave fabric woven from continuous E-glass filament yarn and chemically surface-treated, used mainly as reinforcement in the copper-clad laminate from which printed boards are made. This fabric is the least visible critical material in electronics. It is impregnated with epoxy to make prepreg, stacked with copper foil and

pressed into laminate, and it determines the properties of the finished board: the dimensional stability that decides whether a multilayer board registers layer to layer, the thickness and its uniformity, the dielectric behaviour, the thermal expansion, and the drillability. A board that shifts by tens of micrometres between layers during lamination is scrap, and that shift comes from the fabric. The standard therefore fixes the fabric styles as a specification table - the industry works by style number, and a style is a defined combination of yarn count, warp and weft density, weave and finished thickness - and then sets the requirements: the mass per unit area, the thickness, the warp and weft density, the width and length, the moisture content, the combustible content which measures the surface treatment, and the tensile breaking strength. The 2013 edition added product specifications to the table, added thickness, moisture and tensile breaking strength requirements, and deleted the informative annexes on terminology and yarn coding, which had moved to other documents. Issued on 27 November 2013 and in force since 1 August 2014, it replaces GB/T 18373-2001.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs

GB/T 1549 Methods for chemical analysis of fiber glass

GB/T 2036 Printed Circuit Terminology

GB/T 4202 glass fiber product code

GB/T 7689.1 enhancements Part

GB/T 7689.2 Test methods for woven fabrics - Part 2. The weft density determination

GB/T 7689.3 enhancements Part

3 Test method for woven fabrics. Determination of width and length

GB/T 7689.5 Reinforcements method for woven fabrics Part 5. Glass fiber tensile strength and elongation at break Determine

GB/T 9914.1 Test methods of enhancing Part 1. Determination of moisture content

GB/T 9914.2 Enhanced Test methods - Part 2. Determination of glass fiber content of combustibles

GB/T 9914.3 Enhanced Test methods - Part 3. Determination of mass per unit area

GB/T 18374 Reinforcements Definition

4.1 Code

4.1.1 Code yarn PCB with E glass fiber cloth weaving yarn Code shall comply with GB/T 4202's.

4.1.2 Product code PCB with E glass fiber cloth Code shall comply with GB/T 4202's.