

ICS 29.035.99

CCS K15



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

GB/Z 21213-2007

**High strength laminated sheet based on halongen-free
flame-resistant resins and glass cloth**

无卤阻燃高强度玻璃布层压板

Issued on: December 3, 2007

Implemented on: December 3, 2007

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

Foreword	I
1 Scope	1
2 Normative references	1
3 Requirements	1
3.1 Appearance	1
3.2 Dimensions	1
3.2.1 Limit deviations of width and length	1
3.2.2 Nominal thickness and its limit deviations	1
3.3 Flatness	1
3.4 Performance requirements	1
4 Test methods	3
4.1 Appearance	3
4.2 Pretreatment of specimens and test environment conditions	3
4.3 Width and length	3
4.4 Thickness	3
4.5 Flatness	3
4.6 Flexural strength perpendicular to the laminations	4
4.7 Impact strength	4
4.8 Shear strength parallel to the laminations	4
4.9 Tensile strength	4
4.10 Electric strength perpendicular to the laminations and breakdown voltage parallel to the laminations	4
4.11 Relative permittivity and dielectric dissipation factor	4
4.12 Insulation resistance parallel to the laminations	4
4.13 Volume resistivity	4
4.14 Flammability	4
4.15 Density	4
4.16 Water absorption	4
4.17 Temperature index	4
5 Inspection rules	4
6 Marking, packaging, transport and storage	4
6.1 Marking	4

6.2 Packaging	4
6.3 Transport	5
6.4 Storage	5

Foreword

This guidance document refers to IEC 60893-3-2.2003 "Industrial materials thermosetting resin industrial hard laminates for electrical insulation" Part 3. Requirements for single-material specifications for hard epoxy laminates (English version). This guidance technical document was proposed by the China Electrical Equipment Industry Association. This guidance document is under the jurisdiction of the National Technical Committee for Standardization of Insulation Materials (SAC/TC51). This guiding technical document was drafted by: Oriental Insulation Materials Co., Ltd. The main drafters of this guiding technical document. Liu Feng, Zhao Ping. This guidance document is for the first time. GB /Z21213-2007 Halogen-free flame retardant high-strength glass cloth laminate

1 Scope

This guiding technical document specifies the requirements, the test methods, the inspection rules and the provisions on marking, packaging, transport and storage for halogen-free flame-retardant high-strength glass cloth laminated sheets. This guiding technical document applies to halogen-free flame-retardant high-strength glass cloth laminated sheets made by hot pressing, using alkali-free glass cloth treated with a coupling agent as the reinforcing material and impregnated with a halogen-free flame-retardant resin of temperature index 155. Halogen-free flame-retardant high-strength glass cloth laminated sheets have a high retention of mechanical strength in the hot state; they suit motors and electrical equipment of temperature index 155, are used as insulating structural parts, and can be used in a damp environment and in transformer oil.

This guidance technical document specifies the requirements, test methods, inspection rules, signs, packaging, and halogen-free flame-retardant high-strength glass cloth laminates. Transportation and storage. This guidance document applies to non-alkali glass cloth treated with a coupling agent as a reinforcing material, immersed in a halogen-free resistance with a temperature index of 155. A resin-free, halogen-free, flame-retardant, high-strength glass cloth laminate. Halogen-free flame-retardant high-strength glass cloth laminate with high thermal mechanical strength retention rate, suitable for motors and electrical appliances with a temperature index of 155 The device is used as an insulating structural component and can be used in wet environments and transformer oils.

2 Normative references

The terms of the following documents are incorporated into the terms of this guidance document by reference to this guidance. Any dated Reference documents, all subsequent amendments (not including errata content) or revisions do not apply to this guidance technical document, however, drums The parties that have reached an agreement under this guidance document will investigate whether the latest versions of these documents are available. Any undated reference The latest version of the document applies to this guidance document.

GB/T 1410-2006 Test method for volume resistivity and surface resistivity of solid insulating materials (IEC 60093. 1980, IDT)

GB/T 5130-1997 Industrial hard laminate test method for thermosetting resins for electrical purposes (eqv IEC 60893-2..1992)

GB/T 11020-2005 List of flammability test methods for solid non-metallic materials exposed to flame sources (

IEC 60707.1999, IDT) Electrical insulating materials - Part 1 : Assessment of aging procedures and test results (IEC 60216.1.2001, IDT)

3 Requirements

3.1 Appearance The surface of the sheet is smooth, free of air bubbles, wrinkles, cracks and other defects such as scratches, indentations, stains, and a small amount of spots.

3.2.1 The allowable deviation of width and length shall comply with the requirements of Table 1. Table

1 Width and length in millimeters Width and length deviation 450990 ± 15 >9901980 ± 25

3.2.2 The nominal thickness and its allowable deviation shall comply with the requirements of Table 2.

3.3 straightness Straightness should meet the requirements of Table 3.

3.4 Performance requirements Performance requirements shall be in accordance with Table

4. GB /Z21213-2007