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

GB 25970-2010

Non-combustible inorganic compound board

不燃无机复合板

(English Translation)

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Foreword

The standard of 4.4, 4.5, Chapter 6 and 7.1 are mandatory, the rest are recommended.

The standard proposed by the People's Republic of China Ministry of Public Security.

This standard by the National Standardization Technical Committee for fire protection material Technical Committee (SAC/TC113/SC7) centralized.

This standard was drafted. Ministry of Public Security of Sichuan Fire Research Institute.

1 Scope

This standard specifies the terms and definitions of non-combustible inorganic composite panels, requirements, test methods, inspection rules, marking, storage, packaging and transportation Claim.

This standard applies to the incombustible fiber-reinforced cement board, incombustible fiber-reinforced calcium silicate board, glass magnesium plate or other non-combustible fiber-reinforced Inorganic composite panels.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 5464 non-flammable building materials test method (GB/T 5464-2010, ISO 1182:2002, Reaction to fire tests for building products-Non-combustibility test, IDT) GB/T 7019-1997 Test method for fiber cement products (neq ISO 393-1. 1983) GB 8624 Classification of building materials and combustion products (GB 8624-2006, EN 13501-1:2002, MOD) GB/T 14402 Determination of the heat of combustion values of building materials and products (GB/T 14402-2007, ISO 1716.

2002, IDT)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Inorganic materials for the cementitious material and add a variety of modified materials reinforced with fibers, can meet the requirements of non-combustible composite sheet (eg. fiber Fiber reinforced cement board, calcium silicate board, magnesium plate glass or other inorganic composite sheet).

4.1 Classification and requirements for physical and mechanical properties

Press the apparent density of the product is divided into seven categories, their category and the basic physical and mechanical properties are shown in Table 1.

Table 1 Category and physical and mechanical properties

category

Apparent density ρ_0 /(Kg/m³) Dry bending strength/MPa 3.0mm ≤ thickness e ≤ 7.0mm

7.0mm 2000 ± 5 $\leq 2000 \pm 3$ 1. The nominal thickness of no more than $\pm 10\%$, the maximum does not exceed $\pm 1.5\text{mm}$;

2. Plate the largest measured difference of the same minimum thickness does not exceed the nominal thickness $\pm 10\%$, the maximum does not exceed 1.0mm $\rho > 1500 > 2000 \pm 5$ $\leq 2000 \pm 5$ 1. The nominal thickness of no more than $\pm 15\%$, the maximum does not exceed $\pm 2.0\text{mm}$;

2. Plate the largest measured difference of the same minimum thickness does not exceed the nominal thickness $\pm 15\%$, a maximum 1.5mm

4.3.3 Differential edge flatness and diagonal allowable value

Poor flatness and diagonal edges of the allowed values shall conform to Table 3.

Differential edge table flatness and diagonal allowable value Project $\rho \leq 1500\text{kg/m}^3$ $\rho > 1500\text{kg/m}^3$ Edge straightness $\leq 0.2\%$, the maximum distance to the reference sheet edge does not exceed 3.0mm $\leq 0.3\%$, the maximum distance to the reference sheet edge does not exceed Over 5.0mm Diagonal difference the length of $\leq 2000\text{mm}$, does not exceed the difference between the diagonal 3.0mm;

Length $> 2000\text{mm}$, does not exceed the difference between the diagonal 5.0mm the length of $\leq 2000\text{mm}$, does not exceed the difference between the diagonal 5.0mm;

Length $> 2000\text{mm}$, does not exceed the difference between the diagonal 7.0mm

4.4 Mechanical Properties Physical

Physical and mechanical properties shall conform to Table 4.

Table 4 Mechanical Properties Physical

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Dry bending strength/MPa in line with the values specified in Table 1 the saturated water absorption Flexural strength/MPa of not less than 70% of the value specified in Table 1 Moisture deformation rate /% ≤ 0.20 Halogen-free anti-reversion resistance drops, no damp Note. The anti-reversion properties only apply to the halogen magnesium plate glass.

4.5 Combustion performance

Combustion performance should be consistent with the GB 8624 of homogeneous material A1 level requirements.

5.1 Appearance quality

Appearance quality by visual inspection sheet manner.

5.2.1 Measuring Tool

Measurements should be used as precision measuring different.

- a) an accuracy of 1mm steel tape measure;
- b) not more than 0.1mm accuracy caliper.

5.2.2 The length and width measurements Length and width steel tape measure at the midpoint of the plate edge and 25mm from both ends of the measurement, each measured twice, accurate to 1mm. measuring should avoid visible local defects, the arithmetic mean of six measurements, that is, as the length or width of the plate, and shall meet Table 2 Requirements.

5.2.3 Thickness Measurement

One side of the board, according to the measuring position shown in Figure 1, with a caliper thickness measuring 8 points, accurate to 0.1mm. 8 measurements If the average value shall meet the requirements of Table 2.

1 thickness measurement location map

5.2.4 Edge flatness measurement

The plates were followed by four sides over the plate against a long reference line, with a vernier caliper plate edge and the reference line from the edge of the largest from the nearest 0.1mm. The distance and the edge length ratio shall meet the requirements of Table 3.

5.2.5 Diagonal length measurement

Steel tape measure diagonal length plate, accurate to 1mm. Diagonal length difference between the two should meet the requirements of Table 3.

5.3.1 Preparation of test pieces

Physical and mechanical properties of the specimen shall be in a position not less than 200mm from the edge of the plate interception. Among them, the dry bending strength and water saturated state Interception position bending strength test piece shown in Figure 2.

Figure 2 flexural strength specimens intercept position

5.3.2 Apparent density

According to GB/T 7019-1997 the provisions of Chapter 5 of the method for the determination.