



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

GB 12441-2005

**Finishing fire retardant paint
(English Translation)**

Issued on: November 30, 2005

Implemented on: May 1, 2006

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	6
4 Technical requirements...	6
5 Test methods...	7
6 Inspection rules...	8
7 Marks, instructions for use...	9
8 Packaging, transport and storage...	10
Annex A (Normative) Big panel combustion method...	11
Annex B (Normative) Tunnel combustion method...	17
Annex C (Normative) Chamber combustion method...	22

4.2 of this Standard is mandatory; the rest are recommendatory.

This Standard replaces GB 12441-1998 General technical specifications for finishing fire retardant paint, GB 15442.1-1995 Classification and test methods for fire retardant of finishing fire retardant paints - Classification for fire retardancy, GB/T 15442.2-1995 Classification and test methods for fire retardant of finishing fire retardant paints - Big panel method, GB/T 15442.3-1995 Classification and test methods for fire retardancy of finishing fire retardant paints - Tunnel method, GB/T 15442.4-1995 Classification - Test methods for fire retardancy of finishing fire retardant paints - Cabinet method. Compared with GB 12441-1998, GB 15442.1-1995, GB/T 15442.2-1995, GB/T 15442.3-1995, GB/T 15442.4-1995, the modifications in this Standard are as follows.

- this Standard merged the technical contents of five standards;
- this Standard added Annex A, Annex B, Annex C;
- deleted the grade classification of finishing fire retardant paint

performance;

- modified the number of temperature measurement point of specimen

backfire surface in big panel method from one to five.

Annex A, Annex B, Annex C of this Standard are normative.

This Standard was proposed by Ministry of Public Security of the People 's Republic of China.

This Standard shall be under the jurisdiction of the Seventh Committee of National Technical Committee on Fire Protection of Standardization Administration of China (SAC/TC 113 / SC 7).

Main drafting organization of this Standard. Ministry of Public Security Sichuan Fire Research Institute.

The drafting organizations of this Standard. Sichuan Tianfu Fireproof Material Co., Ltd., Hangzhou Xizi Fireproof Material Co., Ltd., Kunshan Fireproof Materials Co., Ltd.

Main drafters of this Standard. Cheng Daobin, Li Feng, Zhang Cai, Feng Jun, Zhang Qingming, Ding Chunfu, Qiu Luda.

Versions of standard substituted by this Standard are.

Finishing fire retardant paint

1 Scope

This Standard specifies the terms and definitions, technical requirements, test methods, inspection rules, marks and packaging of finishing fire retardant paint.

2 Normative references

The following standards contain the provisions which, through reference in this Standard, constitute the provisions of this Standard. For dated references, subsequent amendments (excluding corrections) or revisions do not apply to this Standard. However, the parties who enter into agreement based on this Standard are encouraged to investigate whether the latest versions of these

documents are applicable. For undated reference documents, the latest versions apply to this Standard.

GB/T 1720, Method of test for adhesion of paint films

GB/T 1724, Methods of test for fineness of grind of paints

GB/T 1727, General preparation of paint film

GB/T 1728-1989, Paint film, putty film drying time determination method

GB/T 1731, Determination of flexibility of films

GB/T 1732, Determination of impact resistance of paint film

GB/T 1733-1993, Determination of resistance to water of films

GB/T 1740, Methods of test for resistance to heat and humidity of paint films

GB/T 3181, Color standard for paint film

GB 3186, Paints varnishes and raw materials for paints and varnishes - Sampling

GB 9969.1, General principles for preparation of instructions for use of industrial products

Carry out according to the method specified in GB/T 1724.

5.7 Drying time

Carry out according to the method specified in GB/T 1728-1998 (Method A).

5.8 Adhesion

Carry out according to the method specified in GB/T 1720.

5.9 Flexibility

Carry out according to the method specified in GB/T 1731.

5.10 Impact resistance

Carry out according to the method specified in GB/T 1732.

5.11 Water resistance

Carry out according to the method specified in GB/T 1733-1993 (Method A).

5.12 Resistance to dampness

Carry out according to the method specified in GB/T 1740.

5.13 Flame resistance time

Carry out according to the method specified in Annex A.

5.14 Flame propagation ratio

Carry out according to the method specified in Annex B.

5.15 Carbonized volume

Carry out according to the method specified in Annex C.

5.16 Mass loss

Carry out according to the method specified in Annex C.

6.1 Sampling

When sampling, refer to the provisions of GB 3186, i.e., (N - total number of barrels, n - number of sample barrels), $n \geq 2$, confirm the number of sample barrels and randomly extract sample. The paint shall be stirred even before sampling, and the same amount (obtained by calculation) is taken from the sample barrel. After even mixing, put into the sample holding container. There shall be 5% ~ 10% gap in the container. The batch number of samples extracted shall not be less than 1 t, the number of samples extracted not less than 10 kg.

6.2 Exit-factory inspection item

The exit-factory inspection items include the state in container, fineness, drying time, adhesion, impact resistance, water resistance, resistance to dampness and flame resistance time.