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

GB/T 1710-2008

Replacing GB/T 1710-1979

**Comparison of resistance to light of coloured pigments of
similar types**

(English Translation)

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Foreword

This revised standard adopts the International Standard ISO 787/15. 1986 "General methods of test for pigments and extenders - Part 15. Similar Coloring pigment light fastness "(in English).

The standard in the use of international standards have been modified, these technical differences between a single vertical line identifies the page in terms of which they are involved Margin. Technical differences and their reasons are given in the list in Appendix A for reference.

This standard is the international standard ISO 787/15. Compared to 1986, the main technical differences are.

- This standard references the equivalent existing national standards with the corresponding international standards;
- The standard reference "ISO 4892-2:2006" Plastics - Methods of exposure to laboratory light sources --- Part 2. Xenon arc lamp "";
- The standard reference "ISO 11341:2004" --- resin coatings and artificial aging and exposure to artificial irradiation exposure by filtration ---Light xenon arc lamp illumination "";
- The standard reference "CIE Publication No.85. 1989" spectral irradiance of the sun ";
- This standard adds "relevant agreed Other suitable for the preparation of the test piece substrate";
- This standard adds "agreed between the parties concerned other suitable equipment and film thickness applied";
- This standard adds "color measurement instrument used and gives the test model were tested and agreed reference samples exposed portions and unexposed portions the color difference ΔE ;
- The standard international standards remove the foreword;

--- The standard editing international standards introduction of this standard introduction.

This standard replaces GB/T 1710-1979 "Determination of pigment lightfastness." this standard compared with GB/T 1710-1979, the main technical differences are.

--- Adopt this standard 6.1 "relevant parties agreed reference pigment and light fastness test sample", the original standard only samplefeed Line light resistance test;

--- The standard 4.7 adds to the transmittance of the glass require natural exposure method, and provides for the longest time glass;

--- This standard increases the specific technical requirements for equipment and artificial light sources at 4.8 sun exposure method, using only the power of the original standard Rate 1.5kW light fastness machine;

--- Agreed with this standard binder (medium), the dispersion composition and dispersion method of sample preparation and the agreed reference pigment dispersion original Standard samples were prepared and the test plates were made for specific provisions;

The samples were knot --- This standard adds "the agreed reference pigment, the amount of change is equal to the gray color patch level 4 and level 3 when fastness Evaluation of fruit ";

--- This standard adds "color measurement instrument used and gives the test model were tested and agreed reference samples exposed portions and unexposed portions the color difference value ΔE ".

Appendix A of this standard and Appendix B is an informative annex.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee paint pigment.

Drafting of this standard. Shanghai Institute of paint, in the construction of Changzhou coating Chemical Research Institute.

Participated in the drafting of this standard. Shanghai Institute of Quality Supervision, Inspection, Jiangsu double-Chemical Pigment Co., Ltd., Zhenjiang City Jinyang Pigment Chemical Co., Ltd., Shangyu City Donghai Chemical Co., Ltd., Zhejiang Baihe Chemical Holding Group, Kunshan City Shiming Technology Development Co., Ltd.

Introduction

The term "light resistance" (or color fastness) refers to a material exposed to light, resistance to the performance of their changes in appearance. Appearance changes (if any the quantity and quality of light, then) the size of the irradiated material by coating by impact, but also affected by the nature and composition of the material itself. Two mixed Compound, which is the same ingredients, but in different proportions, different

lightfastness; composition ratio same as a mixture of two, but instead the same components similar to the components, Light resistance is also different.

When exposed to natural light, because there are many variables (such as intensity and spectral distribution of natural light, temperature, relative humidity and atmospheric Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 250-1995 assessing change in color like the gray card (idt ISO 105/A02.1993Textilestestsforcolourfast-ness-PartA02.

Greyscaleforassessingchangeincolour) GB/T 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT) ISO 4892-2:2006 Plastics - Methods of exposure to laboratory light sources - Part 2. Xenon arc lamp ISO 11341:2004 Paints and varnishes - Artificial weathering and exposure to artificial radiation filtered xenon arc radiation CIE Publication No. 85. 1989 solar spectral irradiance Principle 3 Test samples and agreed reference pigment was dispersed in the same agreed base (medium) to prepare a dispersion of these two dispersions Shi Coated on a substrate and dried, and then under specified conditions, they are exposed to the rain have taken measures to natural sunlight (A law) or exposed to Artificial sunlight (B method).

Evaluation of light resistance comparison test sample by a color change and the agreed reference pigment.

4.1 Substrate

- a) aluminum or cardboard, size and used film coater match for the painted surface is coated with a white, high-gloss, light, without suction Income of surface;
- b) paper, ink character used substrates;
- c) the other suitable for the preparation of the test piece substrate mutually agreed upon, but it should be noted in the test report.

4.2 Applicator device

- a) to a wet film thickness applied parallel 50µm ~ 100µm film of two films applicator;
- b) the appropriate equipment for the preparation of 1.5µm thick ink character;
- c) For additional suitable equipment and film thickness applied mutually agreed upon, but it should be noted in the test report.

4.3 cover layer. the material is aluminum foil or other suitable opaque material.

4.4 Evaluation of changes in gray color sample card. meet GB 250-1995.

4.5 agreed reference pigment. for comparison with the sample shall be agreed upon between the parties concerned and in the composition of the sample should be the same.

4.6 base material (media). the parties concerned agreed that the base should be selected (media) to be tested in accordance with the pigment range of applications.