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

GB/T 24148.8-2014

Replacing GB/T 7193.7-1992

**Plastics -- Unsaturated polyester resin -- Part 8: Determination
of color using platinum-cobalt color metric method**

塑料 不饱和聚酯树脂 (UP-R) 第8部分: 铂-钴比色法测定颜色

(English Translation)

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Foreword

GB/T 24148 "plastic unsaturated polyester resins (UP-R)" is divided into the following nine sections.

- Part 1. Designation system;
- Part 2. Sample preparation and performance measurement;
- Part 3. Technical requirements;
- Part 4. Determination of viscosity;
- Part 5. Determination of solid content;
- Part 6. 130 °C reactivity was measured;
- Part 7. Determination of gel time at room temperature;
- Part 8. platinum - cobalt colorimetric determination of color;
- Part 9. Total volume shrinkage rate determination.

This section GB/T 24148 Part 8.

This Part replaces GB/T 7193.7-1992 "liquid unsaturated polyester resin color test method", and GB/T 7193.7-1992 phase Ratio, the main changes are as follows.

- Title from "liquid unsaturated polyester resin color test method" with "Part 8 plastic unsaturated polyester resins (UP-R) Score. platinum - cobalt colorimetric determination of color";
- Increasing the normative references (see Chapter 2);
- Added reagent grade requirements (see Chapter 5);
- Increasing the sampling normative (see Chapter 8);

--- Increasing the precision of description (see Chapter 11);

--- Increase the informative Appendix A and Appendix B.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses redrafted law, modify the use of ISO 6271-1:2004 "Clear liquids platinum - cobalt color grading - Part 1.

Visual method "(in English).

Technical differences exist compared to 2004, the terms of these differences has been involved through its outer margins. This part of ISO 6271-1 Vertical single-line position (I) were marked.

This part of ISO 6271-1:2004 and its main technical differences for the following reasons.

--- Headlined by "clear liquid platinum - cobalt color grading - Part 1. Visual method" to "plastic unsaturated polyester resin (UP-R) - Part 8. platinum - cobalt colorimetric determination of color. " It should be noted that the unsaturated polyester resin series of standards, the Department Divided GB/T 24148 "plastic unsaturated polyester resins (UP-R)" Part 8;

--- Range from "all platinum - cobalt color standards similar characteristics of pure liquid" to "color characteristics and platinum - cobalt standard solution hue close the liquid unsaturated polyester resins. "Because this part of the unsaturated polyester series of standards in Section 8, to be dealt with epoxy Other pure liquid resin and the like;

--- Increased colorimetric frame and description box (see 6.2 and 6.3) deleted colorimetric's help. Since the colorimetric box for easy ratio Color liquid stored in the dark, while colorimetric box to avoid interference from other sources, to improve the colorimetric accuracy;

--- Sealing material from the "cement" to "wax" (see 7.2). Ease of preparation and laboratory use, but also play a closed effect;

--- Platinum - cobalt colorimetric liquid storage time changed from 1 year 6 months (see 7.3). Modified to increase the colorimetric accuracy;

--- Platinum - Cobalt standard color liquid storage time from six months to 2 months (see 7.3). Modified to increase the colorimetric accuracy;

--- Of Procedure made more suitable for unsaturated polyester resins in the field modification (Chapter 9). Mainly for unsaturated polyester Professional handling of the resin, avoid the improper handling, affect colorimetric results;

--- Added Appendix A, for a number of color number over 500 unsaturated polyester resin provides a reference test method. For some easy Yen Resin darker color (color number larger than No. 500) can also refer to the use of this section, to avoid using different

colorimetric system to measure.

This section also made the following editorial changes.

- a) to the "international standards" be replaced by "this part" to "this part of ISO 6271-1" with the words "this section";
- b) Delete the ISO 6271-1:2004 Foreword;
- c) increase the national standard foreword;
- d) the "Normative references" in place of national standards with international standards set forth in the corresponding chapter.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standards Technical Committee plastic thermosetting plastics Club (SAC/TC15/SC11) centralized.

This section is responsible for drafting. Jiangsu Yabang Paint Co., Ltd.

Participated in the drafting of this section. Zhejiang Tianhe Resin Co., Ltd., the National Quality Supervision and Inspection Center of synthetic resin, Guangdong Panyu Futian Chemical Co., Ltd. Tianjin All material resin, East China University of Technology Huachang Polymer Co., Ltd., Jiangsu Fu Ling Chemical Co., Ltd., Chang State Tianma Group Co., Ltd.

1 Scope

This section GB/T 24148 specifies the platinum - cobalt color number to evaluate the color of liquid unsaturated polyester resin method.

This section applies to liquid unsaturated polyester resins for color characteristics and platinum - cobalt standard solution hue closest liquid unsaturated polyester resin Color measurement.

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 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT) GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

Platinum - cobalt color number Pt-Coscale Platinum - cobalt color number containing a predetermined amount of platinum (IV) (in the form of chloroplatinic acid ion) and the color of cobalt chloride hexahydrate solution (II) time.

Principle 4

Liquid unsaturated polyester resin sample solution is compared with the standard color, and the closest platinum - cobalt color number shows the results.

5 Reagents

During the test, use only analytical reagent and GB/T 6682-2008 specified in the rating of at least three of water.

5.1

chloroplatinic potassium (IV), K_2PtCl_6 .

5.2

cobalt chloride hexahydrate (II), $CoCl_2 \cdot 6H_2O$.

5.3

hydrochloric acid (HCl), 38% (mass fraction), a density of 1.19g/mL.

6 Instruments

6.1

colorimetric tube. flat, the volume of 100mL, there are grinding mouth transparent glass stopper. Each colorimetric tube color should be consistent, and the bottom of the tube above 275mm shall be marked with a tick between 295mm, and between colorimetric tube tick height difference of no more than 3mm.

6.2

colorimetric frame. Aperture can make 100mL colorimetric tube into the bottom with a mirror glass. Shelves painted matt black.