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

GB/T 27810-2011

**Binders for paints and varnishes -- Gel permeation
chromatography (GPC) -- Tetrahydrofuran (THF) as eluent**

色漆和清漆用漆基 凝胶渗透色谱法 (GPC) 用四氢呋喃做洗脱剂

(English Translation)

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Foreword

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

This standard uses the translation method identical with the international standard ISO 13885-1:2008 "Paints and varnishes - Gel permeation chromatography Method (GPC) - Part 1. Tetrahydrofuran as elution agent. " Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT)

--- GB/T 6379.1-2004 measurement methods and results of Accuracy (trueness and precision) - Part 1. General and given Yi (ISO 5725-1:1994, IDT)

--- GB/T 20777-2006 Paints and varnishes examination and preparation of samples (ISO 1513:1992, IDT) the editorial changes made the following standard.

--- Change the standard name.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee paint pigment (SAC/TC5) centralized.

This standard was drafted. CNOOC Changzhou coating Chemical Research Institute, Shenzhen Hirota Decoration Group Co., Ltd.

1 Scope

This standard specifies 1) measured was dissolved in THF (tetrahydrofuran) polymer molecular weight distribution by gel permeation chromatography (GPC), the number average molecular weight M_n and the weight average molecular weight M_w approach.

That the use of this method can obtain good reproducibility, this method can not be specific for certain polymer interaction occurs, for example, Adsorption between the sample/eluent/column system occurred.

This method is not an absolute measurement method should be calibrated using commercially available polystyrene standards unbranched material, and this standard Quality has been measured as obtaining absolute molecular weight. Therefore, in addition to polystyrene, the measurement results of the polymer sample is used only between the same type of sample group Comparison.

The conditions specified in this standard does not apply to a value greater than M_w by GPC analysis of polymer sample 106 (see Appendix C).

This standard without correction methods, such as the elimination of peak broadening. If you want to get the absolute molecular weight value, we need to use an absolute measuring method, for example, Determination of M_n M_w measured by a light scattering method or membrane permeation method.

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.

Check with ISO 1513 Paints and varnishes prepared sample
(Paintsandvarnishes-Examinationandpreparation ofsamplesfortesting) ISO 5725-1
measurement methods and results of Accuracy (trueness and precision) - Part 1. General
principles and definitions (Accuracy (Truenessandprecision)
ofmeasurementmethodsandresults-Part 1. Generalprinciplesanddefini-tions) ISO 15528
Paints, varnishes and raw materials for paints and varnishes - Sampling (Paints,
varnishesandrawmaterialsfor paintsandvarnishes-Sampling)

1), also known as Size Exclusion Chromatography (SEC).

3 Terms and Definitions

The following terms and definitions apply to this document.

Gel permeation chromatography Completely dissolved in the eluent molecules is a porous polymer sample and classifying a column filled, depending on the size of the molecule (or, more accurately