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

GB/T 6750-2007

Replacing GB/T 6750-1986

**Paints and varnishes -- Determination of density -- Pycnometer
method**

色漆和清漆 密度的测定 比重瓶法

(English Translation)

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Foreword

This standard is identical with ISO 2811-1:1997 "Paints and varnishes - Determination of density - Part 1. Pycnometer" (in English).

This standard replaces GB/T 6750-1986 "Paints and varnishes - Determination of density." the previous version of Standard GB/T 6750-1986 main technical differences are as follows.

- Front line version is equivalent to using ISO 2811. 1974;
- This standard specifies the standard test temperature, increasing the density of non-standard test temperature is calculated;
- Clearly defines the volume of metal pycnometer volume, the proportion of glass bottles by 20mL ~ 100mL to 10mL ~ 100mL;
- Changed the balance accuracy requirements;
- Increased use dust cover provisions;
- Increased the number of measurements and test sample requirements;
- Modified step pycnometer calibration.

Appendix A of this standard is a normative appendix, 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.

This standard drafting units. China National Chemical Construction Corporation, Changzhou coating Chemical Research Institute.

1 Scope

This standard is one of the series of standards for paints, varnishes and sampling and testing of related products.

This standard specifies the use of a pycnometer for Paints, varnishes and related products density method.

This test method is applicable to low temperatures, the viscosity measurement of the density of the material. Hubbard pycnometer for high viscosity material density Determination.

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 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT) Laboratory use specifications and test methods (. 1987 neq ISO 3696) GB/T 6682-1992 Analysis GB/T 20777-2006 Paints and varnishes examination and preparation of samples (ISO 1513:1992, IDT)

3 Terms and Definitions

This standard uses the following terms and definitions.

Mass per unit volume of the object, in g/mL represent.

Principle 4

The proportion of bottles filled with the measured product, from the quality and the known specific gravity bulk specific gravity bottle bottles products calculate the density of the tested products.

5 Temperature

Effect of temperature on the density, there was a significant relationship between loading performance, and with the type of product change.

This standard specifies the test temperature $(23 \pm 0.5) ^\circ\text{C}$, can also be tested at other agreed temperature.

Test should be tested products and the specific gravity bottle is adjusted to a predetermined

temperature or agreed upon, and shall be maintained during the test temperature of no more than 0.5 °C.

6.1 Pycnometer

6.1.1

pycnometer metal, or a volume of 50mL 100mL, the cross-section of corrosion-resistant materials for the finishing of a circular cylinder formed Body, above the center with a fitted lid has a suitable hole. The inside of the lid is concave (see Figure 1).

6.1.2

glass pycnometer, volume of 10mL or 100mL (Gay - Lo Sark or Hubbard pycnometer) (see Fig. 2a and 2b).

6.2 Analytical balance, 50mL following pycnometer accurate to 1mg, 50mL to 100mL bottle exact proportion to 10mg.

6.3 Thermometers, accurate to 0.2 °C, indexing is 0.2 °C or less.

GB/T 6750-2007/ISO 2811-1:1997