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

GB/T 6744-2008

Replacing GB/T 6744-1986

**Binders for paints and varnishes -- Determination of
saponification value -- Titrimetric method**

色漆和清漆用漆基 皂化值的测定 滴定法

(English Translation)

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Foreword

This standard is identical with ISO 3681:1996 "Paints and varnishes - Determination of saponification value titration" (in English).

The editorial changes made the following standard.

--- Deleted international standards foreword;

--- "International standard" is replaced by "the national standard." this standard replaces GB/T 6744-1986 "Paints and varnishes - Determination of saponification value." this standard and GB/T 6744-1986 main technical differences are as follows.

--- Front line version is equivalent to using ISO 3681. 1983.

--- Increasing the principle test method.

--- Modify the definition and calculation formula saponification value.

Appendix A of this standard is a normative appendix.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee paint pigment.

This standard was drafted. CNOOC Changzhou coating Chemical Research Institute.

1 Scope

This standard specifies the order of the titration acid content of paints and varnishes are esterified (including paint base and free acid anhydride Content) step.

Because of the resistance to saponification different binder different, so this standard has limitations applicable on. If necessary, under more severe conditions the experiment was repeated to test the complete saponification value, such as extending the saponification time and increase the concentration of potassium hydroxide solution, or as a solvent with a higher boiling alcohol.

This standard does not apply beyond the normal saponification base may be further reacted with the paint base.

Appendix A provides for determination of the saponification value of the binder difficult saponification.

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) GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD) GB/T 12805 Laboratory glassware burette (GB/T 12805-1991, neq ISO 385-1. 1984) GB/T 12808 standard laboratory glassware single line pipette (GB/T 12808-1991, neq ISO 648. 1977)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Alkali metal salts of the organic acid derivative is generated in the process.

Potassium hydroxide (KOH) in milligrams of saponification 1g sample consumed.

Principle 4

After the sample is determined by a preliminary experiment saponification conditions (concentration of potassium hydroxide solution, saponification time), the sample hydroxide under reflux conditions Potassium solution was boiled under the saponification condition. Hydrochloric acid solution was titrated with standard hot solution, optionally indicator titration or potentiometric titration.

5 Reagents

Reagents shall be used for analytical reagent grade, and purity conforming GB/T 6682 of at least three predetermined water.

5.1

Toluene. not saponification or other suitable solvent.

5.2

potassium hydroxide solution. the concentration of Ba (KOH) = 0.5mol isopropanol, ethanol or methanol solution/L of.

NOTE: saponification demanding conditions, the reagent may be potassium hydroxide Ba (KOH) = 2mol/L in ethanol, or ethylene glycol or diethylene glycol dubbed the potassium hydroxide solution.

You can use isopropyl alcohol or methanol, ethanol, an alternative place, use isopropyl alcohol. Applicability and ethanol isopropanol solution considerably, and its toxicity to Less than methanol solution.

GB/T 6744-2008/ISO 3681:1996