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JIS K 5601-2-1 : 1999

(ISO 3682 : 1983)

Testing methods for paint components— Part 2 : Component analysis in solvent soluble matter— Section 1 : Acid value (titrimetric method)

ICS 87.060.30

Descriptors : paints, paint extenders, chemical analysis and testing, determination of content, trichlorobenzene, acid number

Reference number : JIS K 5601-2-1 : 1999 (E)

K 5601-2-1 : 1999 (ISO 3682 : 1983)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

JIS K 5407 corresponding to this Standard will be withdrawn and replaced with this Standard in April 2002, at the time of three years passed after establishment of this Standard.

Consequently it is recommended to comply with this Standard.

JIS K 5601 consists of the following parts.

JIS K 5601 Part 1 Section 1 to Section 2 *General rule*

JIS K 5601 Part 2 Section 1 to Section 4 *Component analysis in solvent soluble matter*

JIS K 5601 Part 3 Section 1 *Component analysis in solvent insoluble matter*

JIS K 5601-2 consists of the following sections under the title of "Testing methods for paint components—Part 2 : Component analysis in solvent soluble matter".

JIS K 5601 Part 2 Section 1 *Acid value (titrimetric method)*

JIS K 5601 Part 2 Section 2 *Softening point (Ring and ball method)*

JIS K 5601 Part 2 Section 3 *Boiling range*

JIS K 5601 Part 2 Section 4 *Alkyd resin*

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Testing methods for paint components—

Part 2 : Component analysis in

solvent soluble matter—

Section 1 : Acid value (titrimetric method)

Introduction This Japanese Industrial Standard has been prepared based on **ISO 3682** *Binders for paints and varnishes—Determination of acid value—Titrimetric method* issued in 1983 as the second edition without changing the technical contents.

The portion underlined with dots in this Standard are not stated in the original International Standard.

1 Scope This Standard specifies a titrimetric method for the determination of the acid value of binders for paints and varnishes. It is not applicable to phenolic resins.

2 References The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of the year of coming into effect is given to these referred standards, only the edition of indicated year constitutes the provision of this Standard but the revision and amendment made thereafter are not applied. The normative references without the indication of the year of coming into effect apply limiting only to the most recent edition (including the amendment).

JIS K 5601-1-2 *Testing methods for paint components—Part 1 : General rule—Section 2 : Determination of non-volatile matter*

Remarks : **ISO 3251** : 1993 *Paints and varnishes—Determination of non-volatile matter of paints, varnishes and binders for paints and varnishes* is identical with the said standard.

ISO 842 *Raw materials for paints and varnishes—Sampling*

3 Definition For the purpose of this Standard, the following definition applies.

acid value The number of milligrams of potassium hydroxide (KOH) required to neutralize the free acids in 1 g of the non-volatile matter of the product.

Note : If free acid anhydrides are present in the binder, as in the case of certain polyester resins, the alcoholic potassium hydroxide solution reacts only partially with the anhydrides; this, however, is generally of little importance with most binders because of the small amount of free anhydrides present.

4 Sampling Take a representative sample of the product to be tested as described in **ISO 842**.

5 Reagents During the analysis, use only reagents of recognized analytical grade.

5.1 Solvent mixture, consisting of 2 parts by volume of toluene and 1 part by volume of ethanol, at least 95 % (V/V)⁽¹⁾ if not otherwise agreed or specified. Neutralize the solvent mixture with the potassium hydroxide solution (**5.2**) prior to use.