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JIS K 5600-4-3 : 1999
(ISO/FDIS 3668 : 1998)

**Testing methods for paints—
Part 4 : Visual characteristics
of film—
Section 3 : Visual comparison
of the colour of paints**

ICS 87.040

Descriptors : paints, painting, membranes, visual perception, colour, colorimetric characteristics, colour tests

Reference number : JIS K 5600-4-3 : 1999 (E)



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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JIS K 5400 corresponding to this Standard will be withdrawn and replaced with this Standard in April 2002, at the time of three years passed after establishment of this Standard.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 5600 consists of the following parts.

JIS K 5600 Part 1 Section 1 to Section 8	<i>General rule</i>
JIS K 5600 Part 2 Section 1 to Section 7	<i>Characteristics and stability of paints</i>
JIS K 5600 Part 3 Section 1 to Section 6	<i>Film formability</i>
JIS K 5600 Part 4 Section 1 to Section 7	<i>Visual characteristics of film</i>
JIS K 5600 Part 5 Section 1 to Section 11	<i>Mechanical property of film</i>
JIS K 5600 Part 6 Section 1 to Section 3	<i>Chemical property of film</i>
JIS K 5600 Part 7 Section 1 to Section 8	<i>Long-period performance of film</i>
JIS K 5600 Part 8 Section 1 to Section 6	<i>Evaluation of degradation of paint coatings</i>

JIS K 5600-4 consists of the following sections under the title of "Testing methods for paints—Part 4 : Visual characteristics of film".

JIS K 5600 Part 4 Section 1	<i>Hiding power (for light-coloured paints)</i>
JIS K 5600 Part 4 Section 2	<i>Hiding power (for dark-coloured paints)</i>
JIS K 5600 Part 4 Section 3	<i>Visual comparison of the colour of paints</i>
JIS K 5600 Part 4 Section 4	<i>Colorimetry (Principles)</i>
JIS K 5600 Part 4 Section 5	<i>Colorimetry (Measurement)</i>
JIS K 5600 Part 4 Section 6	<i>Colorimetry (Calculation of colour differences)</i>
JIS K 5600 Part 4 Section 7	<i>Specular gloss</i>

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Testing methods for paints— Part 4 : Visual characteristics of film— Section 3 : Visual comparison of the colour of paints

Introduction This Japanese Industrial Standard has been prepared based on ISO/FDIS 3668 *Paints and Varnishes—Visual comparison of the colour of paints* issued in 1998 without changing the technical contents.

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

This second edition has resulted from the first edition (ISO 3668 : 1976) by revising the technical contents.

Annexes A and B form an integral part of this Standard and Annex C is for information only.

1 Scope This Standard is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products. It specifies a method for the visual comparison of the colour of films of paints or related products against a standard (either a reference standard or a freshly prepared standard) using either natural daylight or artificial light sources in a standard booth.

It is not applicable to coatings containing special-effect pigments, e.g. metallics, without previous agreement on all details of illuminating and viewing conditions.

2 Normative 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 5600-1-2 *Testing methods for paints—Part 1 : General rule—Section 2 : Sampling of products*

Remarks : ISO 1512 : 1991 *Paints and varnishes—Sampling of products in liquid or paste form* is identical with the said standard.

JIS K 5600-1-3 *Testing methods for paints—Part 1 : General rule—Section 3 : Examination and preparation of samples for testing*

Remarks : ISO 1513 : 1992 *Paints and varnishes—Examination and preparation of samples for testing* is identical with the said standard.

JIS K 5600-1-4 *Testing methods for paints—Part 1 : General rule—Section 4 : Standard panels for testing*

Remarks : ISO 1514 : 1993 *Paints and varnishes—Standard panels for testing* is identical with the said standard.

JIS K 5600-1-6 Testing methods for paints—Part 1 : General rule—Section 6 :
Temperatures and humidities for conditioning and testing

Remarks : **ISO 3270 : 1984** *Paints and varnishes and their raw materials—Temperatures and humidities for conditioning and testing* is identical with the said standard.

JIS K 5600-1-7 Testing methods for paints—Part 1 : General rule—Section 7 : De-
termination of film thickness

Remarks : **ISO/DIS 2808 : 1996** *Paints and varnishes—Determination of film thickness* is equivalent to the said standard.

JIS K 5600-4-4 Testing methods for paints—Part 4 : Visual characteristics of film—
Section 4 : Colorimetry (Principles)

Remarks : **ISO 7724-1 : 1984**¹⁾ *Paints and varnishes—Colorimetry—Part 1 : Principles* is identical with the said standard.

JIS K 5600-4-5 Testing methods for paints—Part 4 : Visual characteristics of film—
Section 5 : Colorimetry (Measurement)

Remarks : **ISO 7724-2 : 1984**²⁾ *Paints and varnishes—Colorimetry—Part 2 : Colour measurement* is identical with the said standard.

JIS K 5600-4-6 Testing methods for paints—Part 4 : Visual characteristics of film—
Section 6 : Colorimetry (Calculation of colour differences)

Remarks : **ISO 7724-3 : 1984**³⁾ *Paints and varnishes—Colorimetry—Part 3 : Calculation of colour differences* is identical with the said standard.

JIS K 5600-8-1 Testing methods for paints—Part 8 : Evaluation of degradation
of paint coatings—Section 1 : General principles and rating
schemes

Remarks : **ISO 4628-1 : 1982** *Paints and varnishes—Evaluation of degradation of paint coatings—Designation of intensity, quantity and size of common types of defect—Part 1 : General principles and rating schemes* is identical with the said standard.

CIE Publication No. 51 : 1981 *A method for assessing the quality of daylight simulator for colorimetry*

CIE Publication No. 15.2 : 1986 *Colorimetry*

Notes ¹⁾ To be published. (Revision of **ISO 7724-1 : 1984**)

²⁾ To be published. (Revision of **ISO 7724-2 : 1984**)

³⁾ To be published. (Revision of **ISO 7724-3 : 1984**)

3 Principle The colours of the paint films to be compared are observed under specified illumination and viewing conditions, either in natural daylight or in artificial light, using a colour-matching booth in the latter case. For the expression of colour difference components (hue, chroma and lightness), a procedure is described, i.e. description using a particular rating scheme. Assessment of metamerism is also taken into account.