



JAPANESE
INDUSTRIAL
STANDARD

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**Testing methods for paints—
Part 3 : Film formability—
Section 6 : Print free test**

ICS 87.040

Descriptors : paints, painting, membranes, film-forming capacity, cross-cut test,
endurance testing, dry-heat tests

Reference number : JIS K 5600-3-6 : 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JIS K 5400 corresponding to this Standard will be withdrawn and replaced with this Standard in April 2002, at the time of three years passed after establishment of this Standard.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 5600-3 consists of the following sections under the title of "Testing methods for paints—Part 3 : Film formability".

JIS K 5600 Part 3 Section 1	<i>Assessment of natural spreading rate (Brush application)</i>
JIS K 5600 Part 3 Section 2	<i>Surface-drying test (Ballotini method)</i>
JIS K 5600 Part 3 Section 3	<i>Through-dry</i>
JIS K 5600 Part 3 Section 4	<i>Evaluation of the compatibility of product with a surface to be painted</i>
JIS K 5600 Part 3 Section 5	<i>Pressure test for stackability</i>
JIS K 5600 Part 3 Section 6	<i>Print free test</i>

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the original JIS is to be the final authority.

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Testing methods for paints— Part 3 : Film formability— Section 6 : Print free test

Introduction This Japanese Industrial Standard has been prepared based on the first edition of **ISO 3678** *Paints and varnishes—Print-free test*, published in 1976, without any modification in technical contents, except additionally included specification on testing methods which were not specified in the corresponding International Standard.

This Standard is one of a series of standards dealing with the sampling and testing methods of paints and their related products. This Standard specifies the procedure of empirical test to carry out the performance evaluation of a coating of paint and their related product in relation to a stage of drying and the properties of a coating.

This Standard requires to be completed by the following supplementary information for any particular application. This information shall be derived from the national standard or other document relating to the product under test or, where appropriate, shall be subjected to the agreement between the interested parties.

- a) Material and surface preparation of the substrate.
- b) Method of application of the test coating to the substrate.
- c) Thickness, in micrometres, of the dry coating and method of measurement in accordance with **JIS K 5600-1-7**, and whether it is a single coating or a multicoat system.
- d) Duration and conditions of drying the coated panel (or conditions of stoving and ageing, if applicable) before testing.
- e) Intervals between tests where print-free time is required.
- f) Details of the grade of nylon gauze used and the force applied in carrying out the test.

Remarks : The results of tests may only be compared if the test conditions are the same for each test.

The portions underlined with dots or sidelined in this Standard are the items not included in the original International Standard.

1 Scope

1.1 This Standard specifies a method for assessing, by means of a simple empirical test, the resistance of a coat of paint and their related product to imprinting by a nylon gauze under a specified force applied at a specified temperature and humidity for a specified time.

1.2 The testing method may be carried out by either of the followings: Either as a