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**JIS K 5600-5-7** : 2014

(JPMA/JSA)

**Testing methods for paints—  
Part 5: Mechanical property of film—  
Section 7: Adhesion test (Pull-off  
method)**

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In the event of any doubts arising as to the contents,  
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## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Paint Manufacturers Association (JPMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS K 5600-5-7:1999** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

**JIS K 5600** series consists of the following 9 parts under the general title “*Testing methods for paints*”:

*Part 1: General rule*

*Part 2: Characteristics and stability of paints*

*Part 3: Film formability*

*Part 4: Visual characteristics of film*

*Part 5: Mechanical property of film*

*Part 6: Chemical property of film*

*Part 7: Long-period performance of film*

*Part 8: Evaluation of degradation of coatings—Designation of quantity and size of defects, and of intensity of uniform changes in appearance*

*Part 9: Coating powders*

**JIS K 5600-5** consists of the following 11 parts under the title of “*Testing methods for paints—Part 5: Mechanical property of film*”:

*Section 1: Bend test (cylindrical mandrel)*

*Section 2: Cupping test*

*Section 3: Falling-weight test*

*Section 4: Scratch hardness (Pencil method)*

*Section 5: Scratch hardness (Stylus method)*

*Section 6: Adhesion test (Cross-cut test)*

*Section 7: Adhesion test (Pull-off method)*

*Section 8: Abrasion resistance (Rotating abrasive-paper-covered wheel method)*

*Section 9: Abrasion resistance (Rotating abrasive rubber wheel method)*

*Section 10: Abrasion resistance (Reciprocating test panel method)*

*Section 11: Washability*

# Testing methods for paints— Part 5: Mechanical property of film— Section 7: Adhesion test (Pull-off method)

## Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 4624** published in 2002 with some modifications of the technical contents.

The portions given dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard describes methods for determining the adhesion by carrying out a pull-off test on a single coating or a multi-coat system of paint, varnish or related product.

The test may be applied using a wide range of substrates. Different procedures are given according to whether the substrate is deformable, for example thin metal, plastics and wood, or rigid, for example thick concrete and metal plates.

NOTE 1 These test methods have been found useful in comparing the adhesion behaviour of different coatings. It is most useful in providing relative ratings for a series of coated panels exhibiting significant differences in adhesion.

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 4624:2002 *Paints and varnishes—Pull-off test for adhesion* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS K 5500 *Glossary of terms for coating materials*

JIS K 5600-1-2 *Testing methods for paints—Part 1: General rules—Section 2: Sampling*

NOTE : Corresponding International standard: ISO 15528 *Paints, varnishes and raw materials for paints and varnishes—Sampling* (IDT)