

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS K 5603 : 2017

(JPMA/JPIA/JSA)

**Thermal performance of paint film—
Determination of solar absorptance
with a heat flow meter**

ICS 87.040

Reference number : **JIS K 5603 : 2017 (E)**

K 5603 : 2017

Date of Establishment: 2017-11-20

Date of Public Notice in Official Gazette: 2017-11-20

Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area

JIS K 5603:2017, First English edition published in 2018-10

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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Printed in Japan

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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Paint Manufacturers Association (JPMA)/Japan Paint Inspection and Testing Association (JPIA)/Japanese Standards Association (JSA) with the draft prepared from the association standard (JPMS 29:2016) being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

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- a) Patent number: 5589151
Registration date: 2014-08-01
Title of invention: Thermal characterization methods and apparatus
Patent holder: Japan Paint Manufacturers Association
Japan Paint Inspection and Testing Association
- b) Patent number: 5809765
Registration date: 2015-09-18
Title of invention: Thermal characterization methods and apparatus
Patent holder: Japan Paint Manufacturers Association
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Thermal performance of paint film— Determination of solar absorptance with a heat flow meter

Introduction

Currently available **JISs** involving optical methods of evaluating thermal performance of a paint film are **JIS K 5602** (Determination of reflectance of solar radiation by paint film), which specifies the method for determining solar reflectance of paint film, and **JIS K 5675** (High solar reflectant paint for roof), which specifies performance requirements for paints. This Japanese Industrial Standard has been established to standardize a method for determining and evaluating the solar absorptance of a paint film based on the quantity of heat generated due to absorption of solar radiation.

No corresponding International Standard has been established at this point.

1 Scope

This Standard specifies the heat flow measurement method of the solar absorptance of paint films used for roofs and outer walls of a building, structures, equipment and facilities that are situated outdoors and exposed to solar radiation.

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 A 0202 *Thermal insulation—Vocabulary*

JIS A 1412-1 *Test method for thermal resistance and related properties of thermal insulations—Part 1: Guarded hot plate apparatus*

JIS A 1412-2 *Test method for thermal resistance and related properties of thermal insulations—Part 2: Heat flow meter apparatus*

JIS A 4710 *Windows and doorsets—Thermal resistance test*

JIS C 1602 *Thermocouples*

JIS C 8904-9 *Photovoltaic devices—Part 9: Solar simulator performance requirements*

JIS H 4000 *Aluminium and aluminium alloy sheets, strips and plates*

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*

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

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