Singapore Standards Council

SS 5 : Part B15 : 2013(2018)

ISO 1523:2002, IDT

(ICS 75.080; 87.040)

SINGAPORE STANDARD

Methods of test for paints, varnishes and related materials

– Part B15 : Determination of flash point – Closed cup equilibrium method

[ISO title : Determination of flash point – Closed cup equilibrium method]

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This Singapore Standard was approved by the Chemical Standards Committee on behalf of the Singapore Standards Council on 25 January 2013.

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Second revision, 2013.

The Chemical Standards Committee, appointed by the Standards Council, consists of the following members:

		Name	Capacity
Chairman	:	Dr Keith Carpenter	*Member, Standards Council*
Deputy Chairman	:	Dr Tay Kin Bee	*Individual Capacity*
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Secretary 2	:	Ms Jillian Chin	*Standards Development Organisation@Singapore Chemical Industry Council*
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		Assoc Prof Thomas Liew	*Individual Capacity*
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		Mr Pitt Kuan Wah	*Individual Capacity*
		Mr Wang Hui Hua	*Individual Capacity*

The Technical Committee on Surface Coatings, appointed by the Chemical Standards Committee, consists of representatives from the following organisations:

		Name	Capacity
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Members	:	Ms Grace Cheok-Chan	*Green Mark Department, Building and Construction Authority*
		Dr Dien Pandiman	*Pidilite Innovation Centre Pte Ltd*
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		Ms Catherine Wong	*Setsco Services Pte Ltd*
		Mrs Wong-Lin Tai Hoe	*TUV SUD PSB Pte Ltd*
		Dr Yin Xi Jiang	*Singapore Surface Engineering Association*

The Working Group appointed by the Technical Committee to assist in the preparation of this standard comprises the following experts who contribute in their *individual capacity*:

		Name
Convenor	:	Dr Li Sihai
Secretary	:	Ms Elane Ng
Members	:	Ms Karen Chen
		Ms Guo Yilin
		Ms Kee Pei Ling
		Mr Lim Kian Chye
		Ms Shirley Lim
		Mr Simplicio Escano Sala

The organisations in which the experts of the Working Group are involved are:

AkzoNobel Paints (Singapore) Pte Ltd
DNT Singapore Pte Ltd
Housing & Development Board
Nippon Paint (Singapore) Co Pte Ltd
Pidilite Innovation Centre Pte Ltd
Setsco Services Pte Ltd
TUV SUD PSB Pte Ltd

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National Foreword

This Singapore Standard was prepared by the Working Group on the Review of Singapore Standard SS 5 Methods of Test for Paints, Varnishes and Related Materials appointed by the Technical Committee on Surface Coatings under the direction of the Chemical Standards Committee.

This is a revision of SS 5 : Part B15 : 1987 (2003) 'Methods of test for paints, varnishes and related materials – Determination of flash point – Closed cup equilibrium method'. It is an identical adoption of ISO 1523 : 2002 'Determination of flash point – Closed cup equilibrium method', published by the International Organization for Standardization.

The following reminder is inserted:

Subclause	Insertion
10.3	Confirm the bath is at the required temperature.

To facilitate identification, the affected text of the International Standard which is to be changed is indicated by a left margin bar adjacent to it.

Where appropriate, the words 'International Standard' in ISO 1523 : 2002 shall be read as 'Singapore Standard'. The references to International Standards shall be replaced by the following Singapore Standards:

International Standard	Corresponding Singapore Standard
ISO 1523	SS 5 : Part B15
ISO 15528 : 2000	SS 5 : Part A1

ISO 1513 : 1992 has been withdrawn and replaced with ISO 1513 : 2010 which corresponds to SS 5 Part A2.

For an overview of other parts to Singapore Standard 5, it is recommended to read the information in SS 5 : Part 0 'General introduction' which is issued separately.

Acknowledgement is made for the use of information from the above reference.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1523 was prepared jointly by Technical Committees ISO/TC 28, *Petroleum products and lubricants* and ISO/TC 35, *Paints and varnishes*.

This third edition cancels and replaces the second edition (ISO 1523:1983), which has been technically revised.

Annex A of this International Standard is for information only.

Methods of test for paints, varnishes and related materials – Part B15 : Determination of flash point – Closed cup equilibrium method

0 Introduction

This International Standard describes one of two closed cup equilibrium methods for the determination of the flash point of paints, varnishes, petroleum and related products, and it should be read in conjunction with the second equilibrium method, ISO 3679 ([5] in the bibliography), when selecting a method.

The determination of the flash/no flash temperature using the same equipment is described in ISO 1516 ([4] in the bibliography).

By the procedure specified, differences between test apparatus of various standard designs are minimized by ensuring that the test is carried out only when the product under test and the air/vapour mixture above it in the test vessel are considered to be in temperature equilibrium.

1 Scope

This International Standard specifies a method to determine the flash point of paints, varnishes, paint binders, solvents, petroleum or related products.

This International Standard is not applicable to water-borne paints which may, however, be tested using ISO 3679 ([5] in the bibliography).

The method is suitable for use over the temperature range – 30 °C to 110 °C, depending on the use of different apparatus listed in Table 1.

The interpretation of results obtained from solvent mixtures containing halogenated hydrocarbons should be considered with caution, as these mixtures can give anomalous results.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1513:1992 Paints and varnishes — Examination and preparation of samples for testing

ISO 2719 — [1)] Petroleum products and lubricants — Determination of flash point — Pensky-Martens closed cup method

[1)] To be published. (Revision of ISO 2719:1988)