SRI LANKA STANDARD 1256: Part 41: 2019
(ISO 21545: 2018)
UDC 667.661

METHODS OF TEST FOR PAINTS AND VARNISHES
PART 41: DETERMINATION OF SETTLING

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
METHODS OF TEST FOR PAINTS AND VARNISHES
PART 41: DETERMINATION OF SETTLING

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(ISO 21545: 2018)

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Sri Lanka.

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This Standard does not purport to include all the necessary provisions of a contract

Sri Lanka Standard
METHODS OF TEST FOR PAINTS AND VARNISHES
PART 41: DETERMINATION OF SETTLING

NATIONAL FOREWORD

This Standard was approved by the Sectoral Committee on Chemical and Polymer Technology and authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2019-10-22

The text of the International Standard ISO 21545: 2018 Paints and varnishes – Determination of settling has been accepted for adoption as a Sri Lanka Standard which specifies a method for determining the settling of coating materials. It is used to determine short-time settling.

This Standard is identical with ISO 21545: 2018 Paints and varnishes – Determination of settling, published by the International Organization for Standardization (ISO).

TERMINOLOGY AND CONVENTIONS

The text of the International Standard has been accepted as suitable for publication, without deviation, as a Sri Lanka Standard. However, certain terminology and conventions are not identical with those used in Sri Lanka Standards. Attention is therefore drawn to the following:

a) Wherever the words “International Standard” appear referring to a particular Standard they should be interpreted as “Sri Lanka Standard”.

b) The comma has been used throughout as a decimal marker. In Sri Lanka Standards it is the current practice to use the full point at the base as the decimal marker.

c) Wherever page numbers are quoted, they are ISO page numbers.

Cross References

International Standard	Corresponding Sri Lanka Standard
ISO 1513, Paints and varnishes — Examination and preparation of test samples	SLS 1256, Methods of test for paints and varnishes Part 1 Examination and preparation of samples for testing
ISO 4618:2014, Paints and varnishes — Terms and definitions	SLS 1541, Terms and definitions for paints and varnishes
ISO 4788, Laboratory glassware — Graduated measuring cylinders	No corresponding Sri Lanka Standard
ISO 15528, Paints, varnishes and raw materials for paints and varnishes — Sampling	SLS 523, Method of sampling for paints, varnishes and raw materials for paints and varnishes

SLS 1256 Part 41: 2019

INTERNATIONAL STANDARD

ISO 21545

First edition
2018-08

Paints and varnishes — Determination of settling

Peintures et vernis — Détermination de la sédimentation

Reference number
ISO 21545:2018(E)

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document uses a glass cylinder and the height of settling is read after an agreed time, usually a short interval of some hours or days.

An alternative method for determining the settling of coating materials is given in ASTM D869[1].

The method described in ASTM D869 uses a metal can and the settling of the paint is determined after 6 months of storage time. Then the settling is reincorporated by stirring and the result is rated using a 0 to 10 scale. That method is more like a shelf-life test.

INTERNATIONAL STANDARD **ISO 21545:2018(E)**

Paints and varnishes — Determination of settling

1 Scope

This document specifies a method for determining the settling of coating materials. It is used to determine short-time settling, e.g. during transport or in an electro-deposition bath.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1513, *Paints and varnishes — Examination and preparation of test samples*

ISO 4618:2014, *Paints and varnishes — Terms and definitions*

ISO 4788, *Laboratory glassware — Graduated measuring cylinders*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
settling
deposition of a sediment on the bottom of a can of a coating material

Note 1 to entry: A compact sediment cannot be redispersed by simple stirring.

[SOURCE: ISO 4618:2014, 2.227]

4 Principle

The coating material rests in a measuring cylinder at a specified temperature and for a specified period of time, so that solids can settle. The height of the sediment on the bottom is measured at specified time intervals.

5 Apparatus

Ordinary laboratory apparatus and glassware, together with the following.

5.1 Laboratory stirrer.

5.2 100 ml measuring cylinder with a graduation of 1 ml or **250 ml measuring cylinder** with a graduation of 2 ml, accuracy class B, in accordance with ISO 4788.

5.3 Time measuring device, with a reading accuracy of 30 s.

6 Sampling and preparation of samples

Take a representative sample of the coating material to be tested, as described in ISO 15528. Test the sample in accordance with ISO 1513 and prepare for further testing; stir if necessary.

7 Procedure

7.1 Test temperature

Carry out the test at room temperature. Measure the room temperature and record in the test report.

7.2 Measuring cylinder

The size of the measuring cylinder shall be agreed and stated in the test report.

7.3 Test procedure

Clean the measuring cylinder (5.2) using a suitable solvent and rub dry.

Fill the sample into the measuring cylinder, until the upper surface of the meniscus reaches the 100 ml or 250 ml point. Cap the measuring cylinder.

Let the closed measuring cylinder stand at room temperature for the agreed time (holding time).

Read the volume, in millilitres, of the sediment, calculate its fraction of the total volume, as percentage, and record as the test result.

8 Precision

No precision data are currently available.

9 Test report

The test report shall contain at least the following information:

a) all details necessary for the identification of the tested product;

b) a reference to this document (i.e. ISO 21545);

c) the temperature at which the measurements were carried out;

d) the size of the test cylinder;

e) the holding time;

f) the result of the test, as given in 7.3;

g) any deviation from the specified test method;

h) any unusual observation (deviation) during the test;

i) the date of the test.

Bibliography

[1] ASTM D869, *Standard Test Method for Evaluating Degree of Settling of Paint*

ICS 87.040
Price based on 3 pages

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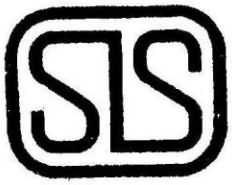
The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*



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SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.