SLOVENSKI STANDARD
oSIST prEN ISO 21545:2020

01-september-2020

Barve in laki - Določevanje usedanja (ISO 21545:2018)

Paints and varnishes - Determination of settling (ISO 21545:2018)

Beschichtungsstoffe - Bestimmung des Absetzverhaltens (ISO 21545:2018)

Peintures et vernis - Détermination de la sédimentation (ISO 21545:2018)

Ta slovenski standard je istoveten z: prEN ISO 21545

ICS:

87.040 Barve in laki Paints and varnishes

oSIST prEN ISO 21545:2020 en,fr,de

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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Published in Switzerland

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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).

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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.

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.

