



BSI Standards Publication

**Paints and varnishes – Determination of the
pot life of multicomponent coating systems –
Preparation and conditioning of samples and
guidelines for testing (ISO 9514:2019)**

National foreword

This British Standard is the UK implementation of EN ISO 9514:2019. It supersedes BS EN ISO 9514:2005, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2019

ISBN 978 0 539 03338 0

ICS 87.040

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2019.

Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD

EN ISO 9514

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2019

ICS 87.040

Supersedes EN ISO 9514:2005

English Version

**Paints and varnishes - Determination of the pot life
of multicomponent coating systems - Preparation and
conditioning of samples and guidelines for testing
(ISO 9514:2019)**

Peintures et vernis - Détermination du délai maximal d'utilisation après mélange des systèmes de revêtement multicomposants - Préparation et conditionnement des échantillons et lignes directrices pour les essais (ISO 9514:2019)

Beschichtungsstoffe - Bestimmung der Verarbeitungszeit von Mehrkomponenten-Beschichtungssystemen - Vorbereitung und Konditionierung von Proben und Leitfaden für die Prüfung (ISO 9514:2019)

This European Standard was approved by CEN on 10 June 2019.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

This document (EN ISO 9514:2019) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

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

This document supersedes EN ISO 9514:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 9514:2019 has been approved by CEN as EN ISO 9514:2019 without any modification.

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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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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*.

This third edition cancels and replaces the second edition (ISO 9514:2005), of which it constitutes a minor revision.

The main changes compared to the previous edition are as follows:

- reference to "low temperature" coating systems have been deleted because they are not defined and it is not clear which systems are covered;
- the description of the conditioning chamber (former 6.2) has been deleted;
- the clause (former Clause 10) on precision has been deleted because no precision data on pot life determined by a specific test method are available;
- poly(vinyl butyrate) and alkyd melamines (acid-catalysed) have been deleted from [Table A.1](#);
- the text of the former notes to the principle have been moved to the new introduction;
- the text has been editorially revised;
- the normative references have been updated;
- the required supplementary information (former [Annex A](#)) have been included in the test report.

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 specifies the conditions for preparing and storing a sample in order to assess the pot-life. These conditions are near to adiabatic so that they bear a close relationship to those which exist in practice, e.g. mixing fairly large volumes of liquid reactive systems for use.

The pot life is dependent on a variety of properties, depending on the reactive system involved. Because of this variety, the pot-life can only be specified with reference to a particular property. Guidance on the property/ies to be tested for various reactive systems is given in [Annex A](#).

Paints and varnishes – Determination of the pot life of multicomponent coating systems – Preparation and conditioning of samples and guidelines for testing

1 Scope

This document specifies a method, carried out under standard conditions, for preparing and storing a sample of a multicomponent coating system and subsequently assessing its pot-life by measuring a particular property/ies.

Reactive systems curing within a short period of time, e.g. 3 h, will have the end of their pot life so near to the gel point that they will need to be tested for that particular property in accordance with ISO 2535.

The method can be carried out either as a pass/fail test by determining the particular property/ies after a specified period of time, or as determination of the pot life by repeating determinations at convenient intervals of time.

This document is not intended for in situ control of products during their application. It is intended to determine "pot life" in the laboratory.

The value obtained from this test method can be subject to modification by suppliers for practical reasons (e.g. starting temperature) when giving advice to users and should then be called the "practical pot life".

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 2535, *Plastics — Unsaturated-polyester resins — Measurement of gel time at ambient temperature*

ISO 3270, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

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

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/>