INTERNATIONAL STANDARD

ISO 9514

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

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

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Contents

Page

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 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9514 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 9514:1992). In this new edition, a conditioning chamber is used instead of a block of polystyrene. The latter can be used as an option for determining the pot life under near-adiabatic conditions. The table in Annex B detailing liquid systems and the possible tests that can be used to determine pot life has been expanded.

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

1 Scope

This International Standard describes 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.

Special “low temperature” grade systems will need to be tested at a lower specified temperature to reflect the conditions under which they will be used in practice. Additionally, it can be a requirement to determine pot life at a specified temperature or temperatures in order to cover a range of practical conditions under which a paint will be used.

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 International Standard is not intended for *in situ* control of products during their application. It is intended to determine “pot life” in the laboratory.

NOTE 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 referenced documents are indispensable for the application 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 samples for testing*

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

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