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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 31416-2015

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

色漆和清漆 多组分涂料体系适用期的测定 样品制备和状态调节及试验指南

(English Translation)

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Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Terms and definitions...	5
4 Principle...	5
5 Required supplementary information...	5
6 Apparatus...	6
7 Sampling...	6
8 Procedure...	6
9 Expression of results...	7
10 Precision...	7
11 Test report...	8
Annex A (Normative) Required supplementary information...	9
Annex B (Informative) Guide to testing of liquid systems...	10
Bibliography...	11

Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard uses translation method and identically adopts ISO 9514.2005

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

The Chinese documents which have consistency with the international normative reference in this Part are as follows.

- GB/T 3186-2006 Paints varnishes and raw materials for paints and varnishes - Sampling (ISO 15528.2000, IDT);
- GB/T 9278-2008 Temperatures and humidities for conditioning and testing of paint specimens (ISO 3270.1984, IDT);
- GB/T 20777-2006 Paints and varnishes - Examination and preparation of samples for testing (ISO 1513.1992, IDT).

This Standard was proposed by China Petroleum and Chemical Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee on Paints and Pigments of Standardization Administration of China (SAC/TC 5).

The drafting organizations of this Standard. CNOOC Changzhou Paint and Chemicals Research Institute Co., Ltd., Guangzhou Biuged Laboratory Instrument Things Co. , Ltd., Guangzhou Synthetic Material Research Institute Co., Ltd., Xinhe New Materials Co., Ltd., Shenzhen Guang Tian Decoration Group Co., Ltd., Chongqing Three Gorges Paint Co., Ltd., Beijing Bihai Zhou Corrosion Protection Industry Co., Ltd..

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

1 Scope

This 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 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
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