



# SLOVENSKI STANDARD SIST EN ISO 16474-1:2014

01-februar-2014

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SIST EN ISO 11341:2005

SIST EN ISO 11507:2007

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**Barve in laki - Metode izpostavljanja laboratorijskim virom svetlobe - 1. del:  
Splošna navodila (ISO 16474-1:2013)**

Paints and varnishes - Methods of exposure to laboratory light sources - Part 1: General guidance (ISO 16474-1:2013)

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Beschichtungsstoffe - Künstliches Bestrahlen oder Bewittern in Geräten - Teil 1:  
Allgemeine Anleitung (ISO 16474-1:2013)

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SIST EN ISO 16474-1:2014

Peintures et vernis - Méthodes d'exposition à des sources lumineuses de laboratoire -  
Partie 1: Lignes directrices générales (ISO 16474-1:2013)

**Ta slovenski standard je istoveten z: EN ISO 16474-1:2013**

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**ICS:**

87.040

Barve in laki

Paints and varnishes

**SIST EN ISO 16474-1:2014**

**en,fr,de**

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EUROPEAN STANDARD

EN ISO 16474-1

NORME EUROPÉENNE

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November 2013

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## Paints and varnishes - Methods of exposure to laboratory light sources - Part 1: General guidance (ISO 16474-1:2013)

Peintures et vernis - Méthodes d'exposition à des sources lumineuses de laboratoire - Partie 1: Lignes directrices générales (ISO 16474-1:2013)

Beschichtungsstoffe - Künstliches Bestrahlen oder Bewittern in Geräten - Teil 1: Allgemeine Anleitung (ISO 16474-1:2013)

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## Foreword

This document (EN ISO 16474-1:2013) 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of an identical text or by endorsement, at the latest by May 2014, and conflicting national standards shall be withdrawn at the latest by May 2014.

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

This document supersedes EN ISO 11341:2004, EN ISO 11507:2007.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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**Paints and varnishes — Methods of  
exposure to laboratory light sources —  
Part 1:  
General guidance**

*Peintures et vernis — Méthodes d'exposition à des sources lumineuses  
de laboratoire —*

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## ISO 16474-1:2013(E)

### 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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This first edition of ISO 16474-1, together with ISO 16474-2, cancels and replaces ISO 11341:2004, which has been technically revised. This first edition of ISO 16474-1, together with ISO 16474-3, cancels and replaces ISO 11507:2007, which has been technically revised.

ISO 16474 consists of the following parts, under the general title *Paints and varnishes — Methods of exposure to laboratory light sources*:

- *Part 1: General guidance*
- *Part 2: Xenon-arc lamps*
- *Part 3: Fluorescent UV lamps*
- *Part 4: Open-flame carbon-arc lamps*

## Introduction

Coatings from paints, varnishes and similar materials are often used outdoors or in indoor locations where they are exposed to solar radiation or to solar radiation behind glass for long periods. It is therefore very important to determine the effects of solar radiation, heat, moisture and other climatic stresses on the colour and other properties of polymers. Outdoor exposures to solar radiation and to solar radiation filtered by window glass are described in ISO 2810[9]. However, it is often necessary to determine more rapidly the effects of light, heat and moisture on the physical, chemical and optical properties of coatings with artificial accelerated weathering or artificial accelerated irradiation exposures that use specific laboratory light sources. Exposures in these laboratory devices are conducted under more controlled conditions than found in natural environments and are intended to accelerate polymer degradation and product failures. Relating results from accelerated weathering or artificial accelerated irradiation exposures to those obtained in actual-use conditions is difficult because of variability in both types of exposure and because laboratory tests often do not reproduce all the exposure stresses experienced by coatings exposed in actual-use conditions. In addition, the increase in rate of degradation by the accelerated test compared with natural exposure conditions varies with the type of material and its formulation. No single laboratory exposure test can be specified as a total simulation of actual-use exposures. The relative durability of materials in actual-use exposures can be very different depending on the location of the exposure because of differences in solar radiation, time of wetness, temperature, pollutants and other factors. Therefore, even if results from specific accelerated weathering or artificial accelerated irradiation exposures are found to be useful for comparing the relative durability of materials exposed in a particular outdoor location or in particular actual-use conditions, it cannot be assumed that they will be useful for determining the relative durability of materials exposed in a different outdoor location or in different actual-use conditions.

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