



# SLOVENSKI STANDARD SIST EN ISO 11997-1:2017

01-december-2017

Nadomešča:

SIST EN ISO 11997-1:2006

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**Barve in laki - Ugotavljanje odpornosti proti cikličnim korozijskim pogojem - 1. del:  
Mokro (slana megla)/suho/vlažno (ISO 11997-1:2017)**

Paints and varnishes - Determination of resistance to cyclic corrosion conditions - Part 1:  
Wet (salt fog)/dry/humid (ISO 11997-1:2017)

Beschichtungsstoffe - Bestimmung der Beständigkeit bei zyklischen  
Korrosionsbedingungen - Teil 1: Nass (Salzsprühnebel)/trocken/Feuchte (ISO 11997-  
1:2017)

Peintures et vernis - Détermination de la résistance aux conditions de corrosion cyclique  
- Partie 1: Brouillard salin/sécheresse/humidité (ISO 11997-1:2017)

**Ta slovenski standard je istoveten z: EN ISO 11997-1:2017**

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**ICS:**

87.040

Barve in laki

Paints and varnishes

**SIST EN ISO 11997-1:2017**

**en,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 11997-1**

September 2017

ICS 87.040

Supersedes EN ISO 11997-1:2006

English Version

**Paints and varnishes - Determination of resistance to cyclic corrosion conditions - Part 1: Wet (salt fog)/dry/humid (ISO 11997-1:2017)**

Peintures et vernis - Détermination de la résistance aux conditions de corrosion cyclique - Partie 1: Brouillard salin/sécheresse/humidité (ISO 11997-1:2017)

Beschichtungsstoffe - Bestimmung der Beständigkeit bei zyklischen Korrosionsbedingungen - Teil 1: Nass (Salzsprühnebel)/trocken/Feuchte (ISO 11997-1:2017)

This European Standard was approved by CEN on 12 July 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## European foreword

This document (EN ISO 11997-1:2017) 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 March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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 11997-1:2006.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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ISO  
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**Paints and varnishes — Determination  
of resistance to cyclic corrosion  
conditions —**

**Part 1:  
Wet (salt fog)/dry/humid**

**iTeh STANDARD PREVIEW**  
*Peintures et vernis — Détermination de la résistance aux conditions  
de corrosion cyclique —  
Partie 1: Brouillard salin/sécheresse/humidité*  
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## ISO 11997-1:2017(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 (see [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 (see [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 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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). (standards.iteh.ai)

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 11997-1:2005), which has been technically revised.

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

- the time for no drops of moisture are visible on the panels (see 6.4) has been changed;
- a reference to ISO 4628-8 for assessment of degree of delamination and corrosion around a scribe or other artificial defect has been added;
- a reference to ISO 4620-10 for assessment of degree of filiform corrosion has been added;
- the supplementary test conditions previously in Annex A have been integrated in the test report;
- the numbering and order of annexes has been changed;
- the adjustment procedure for the pH of the salt solution in Annex A to Annex D has been implemented from ISO 9227;
- the text has been harmonized with the latest edition of ISO 9227 where possible.

A list of all parts in the ISO 11997 series can be found on the ISO website.

## Introduction

Coatings of paints, varnishes and similar materials are exposed to one of four cycles of wet and dry conditions specified in this document (see [Annex A](#) to [Annex D](#)), using specified salt solutions in a cabinet in order to simulate, in the laboratory, processes occurring in aggressive outdoor conditions, such as marine environments. Generally, correlation between such outdoor weathering and laboratory testing cannot be expected because of the large number of factors influencing the breakdown process. Correlation can only be expected if the effect on the coating of important parameters (e.g. the nature of the pollutant, the spectral distribution of the incident irradiance in the relevant photochemical region, the temperature of the specimen, the type and cycle of wetting and relative humidity) is known. In contrast to outdoor weathering, laboratory testing in a cabinet is performed with a reduced number of variables which can be controlled, and therefore the effects are more reproducible. The method described may also give a means of checking that the quality of a paint or paint system is being maintained.

The method has been found to be useful in comparing the cyclic salt spray resistance of different coatings. It is most useful in providing relevant ratings for a series of coated panels exhibiting significant differences in cyclic salt spray resistance.

The test cycles included in this document have been used successfully, with documented evidence, in the industry for the assessment of performance. The cycles can be summarized as follows.

- **Cycle A (see [Annex A](#)):** This cycle is specified in Japanese Automobile Standards JASO M 609-91 and JASO M610-92.
- **Cycle B (see [Annex B](#)):** This is based on the VDA 621-415 cycle and is widely used in Europe. It has also been shown to give good correlation with natural weathering for thermosetting paints in vehicle corrosion.
- **Cycle C (see [Annex C](#)):** This cycle was developed in the UK for use with water-soluble and latex paint systems and has been shown to give good correlation with natural weathering.
- **Cycle D (see [Annex D](#)):** This cycle is specified in Japanese Standard JIS K 5621-2003.

It is intended that other cycles will be added at later revisions of this document, as they are developed for evaluating other paint types.

ISO 11997-2 describes a method for determining the cyclic corrosion resistance of paints which includes UV exposure as part of the cycle. It has been found to give good correlation with natural weathering for industrial maintenance coatings.