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Standards

Irish Standard  
I.S. EN ISO 11997-2:2013

# Paints and varnishes - Determination of resistance to cyclic corrosion conditions - Part 2: Wet (salt fog)/dry/humidity/UV light (ISO 11997-2:2013)

## I.S. EN ISO 11997-2:2013

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English Version

**Paints and varnishes - Determination of resistance to cyclic corrosion conditions - Part 2: Wet (salt fog)/dry/humidity/UV light (ISO 11997-2:2013)**

Peintures et vernis - Détermination de la résistance aux conditions de corrosion cyclique - Partie 2: Brouillard salin/sécheresse/humidité/lumière UV (ISO 11997-2:2013)

Beschichtungsstoffe - Bestimmung der Beständigkeit bei zyklischen Korrosionsbedingungen - Teil 2: Nass (Salzsprühnebel)/trocken/Feuchte/UV-Strahlung (ISO 11997-2:2013)

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

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## **Foreword**

This document (EN ISO 11997-2:2013) 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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.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.

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### **Endorsement notice**

The text of ISO 11997-2:2013 has been approved by CEN as EN ISO 11997-2:2013 without any modification.

**I.S. EN ISO 11997-2:2013**  
**INTERNATIONAL**  
**STANDARD**

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

**Part 2:**  
**Wet (salt fog)/dry/humidity/UV light**

*Peintures et vernis — Détermination de la résistance aux conditions  
de corrosion cyclique —*

*Partie 2: Brouillard salin/sécheresse/humidité/lumière UV*



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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. [www.iso.org/directives](http://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.

The committee responsible for this document is 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 11997-2:2000), which has been technically revised. The main technical changes are:

- a) alternative test procedures have been added as an informative annex;
- b) the supplementary test conditions (formerly Annex A) have been incorporated in the test report.

ISO 11997 consists of the following parts, under the general title *Paints and varnishes — Determination of resistance to cyclic corrosion conditions*:

- Part 1: *Wet(salt fog)/dry/humidity*
- Part 2: *Wet (salt fog)/dry/humidity/UV light*

This part of ISO 11997 is equivalent to ASTM D 5894, *Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog/Dry Cabinet and a UV/Condensation Cabinet)*.

## Introduction

Coatings of paints, varnishes and similar materials are exposed to cyclic wet and dry corrosion and UV exposure conditions using specified salt solutions in cabinets in order to simulate, in the laboratory, processes occurring in aggressive outdoor conditions. Generally, valid correlations between such outdoor weathering and laboratory testing cannot be expected because of the large number of factors influencing the breakdown process. Certain relationships can only be expected if the effect on the coating of the important parameters (e.g. nature of the pollutant, spectral distribution of the incident irradiance in the relevant photochemical region, temperature of the specimen, 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 can give a means of checking that the quality of a paint or paint system is being maintained. The method is intended to provide a more realistic simulation of these factors than is found in traditional tests with continuous exposure to a static set of corrosive conditions. 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/UV exposure resistance tested at the same time and to the same test cycle.

The cycle specified in this part of ISO 11997 has been found useful for air-drying industrial maintenance coatings on steel; other cycles may be used as required.

**I.S. EN ISO 11997-2:2013**

# Paints and varnishes — Determination of resistance to cyclic corrosion conditions —

## Part 2: Wet (salt fog)/dry/humidity/UV light

### 1 Scope

This part of ISO 11997 specifies a test method of determining resistance of coatings to a defined cycle of wet (salt fog)/dry/humidity/UV light conditions using a specified solution.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 1514, *Paints and varnishes — Standard panels for testing*

ISO 2808, *Paints and varnishes — Determination of film thickness*

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

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4628-1, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 1: General introduction and designation system*

ISO 4628-2, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 2: Assessment of degree of blistering*

ISO 4628-3, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 3: Assessment of degree of rusting*

ISO 4628-4, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 4: Assessment of degree of cracking*

ISO 4628-5, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 5: Assessment of degree of flaking*

ISO 4628-6, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 6: Assessment of degree of chalking by tape method*

ISO 4628-8, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 8: Assessment of degree of delamination and corrosion around a scribe or other artificial defect*

ISO 4628-10, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 10: Assessment of degree of filiform corrosion*

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