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Second edition
2017-11

Paints and varnishes — Determination of resistance to humidity —

Part 1: Condensation (single-sided exposure)

*Peintures et vernis — Détermination de la résistance à l'humidité —
Partie 1: Condensation (exposition sur une seule face)*



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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 (see 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).

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.

This document 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 6270-1:1998), which has been technically revised.

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

- the title has been changed;
- the terms and definitions clause has been added;
- a limitations clause concerning the use of other than standard test conditions has been added;
- the preparation of test specimens from liquid paints has been deleted, so only the exposure of coated specimens is described;
- the normative requirement on evaluation in accordance with ISO 4628 has been deleted; information has been moved to the introduction, as it is in ISO 6270-2;
- the size of the test specimens has been changed;
- the requirement to use water of grade 3 purity in accordance with ISO 3696^[1] was deleted;
- a clause on installation of the apparatus has been added;
- the precision has been clarified;
- the normative references have been updated;
- the supplementary test conditions previously in [Clause 4](#) and Annex A have been integrated in the test report, as appropriate, or deleted.

A list of all the parts in the ISO 6270 series can be found on the ISO website.

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Introduction

This document is intended to give consistent conditions and procedures for the conditioning of pre-prepared test specimens which are to be evaluated for defects, which may develop when they are subjected to humid ambient atmospheres such as constant condensation-water atmospheres or alternating condensation-water atmospheres.

The tests are designed to clarify the behaviour of the test specimens in humid ambient atmospheres, and to pinpoint any defects in the protection of the test specimens against corrosion. The testing of coatings in these atmospheres does not necessarily give lifetime prediction data.

After conditioning, the test specimens are evaluated either in accordance with agreed documents, such as the appropriate part(s) of ISO 4628^[2], or by procedures agreed between the interested parties.