
**Paints and varnishes — Determination
of resistance to filiform corrosion —**

**Part 2:
Aluminium substrates**

*Peintures et vernis — Détermination de la résistance à la corrosion
filiforme —*

Partie 2: Subjectiles en aluminium

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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).

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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 4623-2:2003), which has been technically revised. It also incorporates the Technical Corrigendum ISO 4623-2:2003/Cor 1:2005. The following main changes have been made:

- a) duplicate determination has been changed to triplicate determination;
- b) information on the shape of the scribe marks has been added;
- c) the width of the scribe marks has been changed to be in line with EN 3665;
- d) a note on using the CASS test for initiating filiform corrosion was added;
- e) the supplementary test conditions previously in Annex A have been integrated in the test report.

ISO 4623 consists of the following parts, under the general title *Paints and varnishes — Determination of resistance to filiform corrosion*:

- *Part 1: Steel substrates*
- *Part 2: Aluminium substrates*

Introduction

A scribe mark cut through a coating of paints or varnishes on metal can give rise to various types of corrosion, such as blistering of the coating, corrosion of the metal under the coating as well as filiform corrosion. Filiform corrosion tends to develop under specific conditions of temperature and relative humidity and when traces of acids, bases or salts are present either under the paint coating or at breaks in the coating. These conditions are often found in marine and/or industrial environments. A certain amount of under-corrosion of the coating, starting from the scribe mark, will always occur. Filiform corrosion, however, is considered to be present only if the typical pattern in the form of threads is obvious.

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