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Barve in laki - Ugotavljanje odpornosti proti filiformni koroziji - 1. del: Jeklene podlage (ISO 4623-1:2018)

Paints and varnishes - Determination of resistance to filiform corrosion - Part 1: Steel substrates (ISO 4623-1:2018)

Beschichtungsstoffe - Bestimmung der Beständigkeit gegen Filiformkorrosion - Teil 1: Stahl als Substrat (ISO 4623-1:2018)

Peintures et vernis - Détermination de la résistance à la corrosion filiforme - Partie 1: Subjectiles en acier (ISO 4623-1:2018)

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Beschichtungsstoffe - Bestimmung der Beständigkeit gegen Filiformkorrosion - Teil 1: Stahl als Substrat (ISO 4623-1:2018)

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European foreword

This document (EN ISO 4623-1:2018) 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of an identical text or by endorsement, at the latest by May 2019, and conflicting national standards shall be withdrawn at the latest by May 2019.

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.

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Endorsement notice

The text of ISO 4623-1:2018 has been approved by CEN as EN ISO 4623-1:2018 without any modification.

INTERNATIONAL STANDARD

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Paints and varnishes — Determination of resistance to filiform corrosion —

Part 1: Steel substrates

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

Partie 1: Subjectiles en acier

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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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 4623-1:2000), which has been technically revised. The main changes compared to the previous edition are as follows:

a) the text has been aligned with ISO 4623-2;

b) the introduction of ISO 4623-2 has been copied;

c) the definition of filiform corrosion has been aligned with ISO 4623-2;

d) in 10.2 a reference to ISO 17872 for the cutting tool has been added;

e) in 10.3.3 the time of exposure of the test panels to neutral salt fog has been shortened from 24 h to 4 h;

f) the supplementary test conditions previously in Annex A have been integrated into the test report;

g) the text has been editorially revised and the normative references have been updated.

A list of all parts in the ISO 4623 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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.