

**Paints and varnishes - Determination of
resistance to filiform corrosion - Part 1:
Steel substrates**

Paints and varnishes - Determination of resistance
to filiform corrosion - Part 1: Steel substrates

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 4623-1:2002 sisaldab Euroopa standardi EN ISO 4623-1:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.07.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 4623-1:2002 consists of the English text of the European standard EN ISO 4623-1:2002.</p> <p>This document is endorsed on 12.07.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala:</p> <p>This part of EN ISO 4623 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products. It describes a test procedure for assessing the protective action of coatings of paints or varnishes on steel against filiform corrosion arising from a scribed mark cut through the coating.</p>	<p>Scope:</p> <p>This part of EN ISO 4623 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products. It describes a test procedure for assessing the protective action of coatings of paints or varnishes on steel against filiform corrosion arising from a scribed mark cut through the coating.</p>
---	---

ICS 87.040

Võtmesõnad: corrosion resistance, corrosion tests, determination, filiform corrosion tests, paint coats, paints, steels, tests, varnishes

English version

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

Part 1: Steel substrates

(ISO 4623-1 : 2000)

Peintures et vernis – Détermination de
la résistance à la corrosion filiforme –
Partie 1: Subjectiles en acier
(ISO 4623-1 : 2000)

Beschichtungsstoffe – Bestimmung
der Beständigkeit gegen
Filiformkorrosion – Teil 1: Stahl als
Substrat (ISO 4623-1 : 2000)

This European Standard was approved by CEN on 2001-12-27.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Management Centre: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 4623-1 : 2000 Paints and varnishes – Determination of resistance to filiform corrosion – Part 1: Steel substrates,

which was prepared by ISO/TC 35 'Paints and varnishes' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 139 'Paints and varnishes', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by July 2002 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 4623-1 : 2000 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

Contents

	Page
1 Scope	3
2 Normative references	3
3 Term and definition	4
4 Principle	4
5 Required supplementary information	4
6 Sampling	4
7 Apparatus	4
8 Reagents	4
9 Test panels	5
10 Procedure	5
11 Evaluation of the degree of filiform corrosion	7
12 Precision	7
13 Test report	7

Annexes

A Required supplementary information.....	8
B Guidance notes on maintaining exposure conditions using saturated ammonium sulfate solution	9

Introduction

A scribed mark cut through a coating of paints or varnishes on steel can give rise to filiform corrosion. This corrosion tends to develop when the relative humidity is high and when traces of salts are present either under the paint coating or at breaks in the coating. A certain amount of under-rusting of the substrate, starting from the scribed mark, will always occur. Filiform corrosion, however, is considered to be present only if the typical pattern in the form of threads is obvious.

1 Scope

This part of ISO 4623 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products.

It describes a test procedure for assessing the protective action of coatings of paints or varnishes on steel against filiform corrosion arising from a scribed mark cut through the coating.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 4623. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 4623 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 483, *Plastics — Small enclosures for conditioning and testing using aqueous solutions to maintain relative humidity at constant value.*

ISO 1513, *Paints and varnishes — Examination and preparation of samples for testing.*

ISO 1514, *Paints and varnishes — Standard panels for testing.*

ISO 2409, *Paints and varnishes — Cross-cut test.*

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 4628-10, *Paints and varnishes — Evaluation of degradation of coatings — Part 10: Designation of intensity, quantity and size of common types of defect.*

ISO 7253, *Paints and varnishes — Determination of resistance to neutral salt spray (fog).*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling.*