

Paints and varnishes - Bend test (cylindrical mandrel)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 1519:2002 sisaldab Euroopa standardi EN ISO 1519:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 06.08.2002 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 1519:2002 consists of the English text of the European standard EN ISO 1519:2002.</p> <p>This document is endorsed on 06.08.2002 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>
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<p>Käsitlusala:</p> <p>This standard specifies an empirical test procedure for assessing the resistance of a coating of paint, varnish or related product to cracking and/or detachment from a metal substrate when subjected to bending round a cylindrical mandrel under standard conditions.</p>	<p>Scope:</p> <p>This standard specifies an empirical test procedure for assessing the resistance of a coating of paint, varnish or related product to cracking and/or detachment from a metal substrate when subjected to bending round a cylindrical mandrel under standard conditions.</p>
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Võtmesõnad: area, coatings, cylindrical shape, drying, drying stages, evaluations, mandrel bending test, materials testing, methods, painting, paints, piercers, sampling, sampling methods, surfaces, testing, tests, varnishes

English version

Paints and varnishes

**Bend test (cylindrical mandrel)
(ISO 1519 : 2002)**

Peintures et vernis – Essai de pliage
sur mandrin cylindrique
(ISO 1519 : 2002)

Beschichtungsstoffe – Dornbiege-
versuch (zylindrischer Dorn)
(ISO 1519 : 2002)

This European Standard was approved by CEN on 2002-03-04.

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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 1519 : 2002 Paints and varnishes – Bend test (cylindrical mandrel), 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 September 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 1519 : 2002 was approved by CEN as a European Standard without any modification.

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Introduction

This International Standard is one of five standards which specify empirical test procedures for assessing the resistance of coatings of paints, varnishes and related products to cracking and/or detachment from the substrate under different conditions of deformation.

The other four documents are:

- ISO 1520, *Paints and varnishes — Cupping test*
- ISO 6272-1, *Paints and varnishes — Rapid-deformation tests — Part 1: Falling-weight test, large area*
- ISO 6272-2, *Paints and varnishes — Rapid-deformation tests — Part 2: Falling-weight test, small area*
- ISO 6860, *Paints and varnishes — Bend test (conical mandrel)*

The method chosen will depend on the property to be measured and on agreement between the interested parties. In principle, all these tests differ from each other technically and in their accuracy.

1 Scope

This International Standard specifies an empirical test procedure for assessing the resistance of a coating of paint, varnish or related product to cracking and/or detachment from a metal or plastic substrate when subjected to bending round a cylindrical mandrel under standard conditions.

For a multicoat system, each coat may be tested separately or the complete system may be tested.

The method specified may be carried out

- either as a “go/no go” test, by carrying out the test with a single specified size of mandrel, to assess compliance with a particular requirement;
- or by repeating the procedure using successively smaller mandrels to determine the diameter of the first mandrel over which the coating cracks and/or becomes detached from the substrate.

Two types of apparatus are specified, type 1 being appropriate for use on test panels of thickness up to 0,3 mm, and type 2 for use on test panels of thickness up to 1,0 mm. Both types of apparatus have been found to give similar results with the same coating, but normally only one will be used for testing a given product.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard 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 1513:1992, *Paints and varnishes — Examination and preparation of samples for testing*

ISO 1514:—¹⁾, *Paints and varnishes — Standard panels for testing*

ISO 2808:1997, *Paints and varnishes — Determination of film thickness*

ISO 3270:1984, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

ISO 15528:2000, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Required supplementary information

For any particular application, the test method specified in ISO 1519 needs to be completed by supplementary information.

The items of supplementary information are given in annex A.

1) To be published. (Revision of ISO 1514:1993)