

Paints and varnishes - Standard panels for testing

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 1514:2005 sisaldab Euroopa standardi EN ISO 1514:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.01.2005 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 1514:2005 consists of the English text of the European standard EN ISO 1514:2004.</p> <p>This document is endorsed on 25.01.2005 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: This International Standard specifies several types of standard panel and describes procedures for their preparation prior to painting. These standard panels are for use in general methods of test for paints, varnishes and related products.</p>	<p>Scope: This International Standard specifies several types of standard panel and describes procedures for their preparation prior to painting. These standard panels are for use in general methods of test for paints, varnishes and related products.</p>
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ICS 87.040

Võtmesõnad: materials, paints, panels, plant fibres, plaster cardboards, preparation, sample preparation, sampling, sampling methods, standard test plate, steels, storage, test equipment, test panels, testing, tinsplate, tin-plate, varnishes

English version

Paints and varnishes

Standard panels for testing
(ISO 1514 : 2004)

Peintures et vernis – Panneaux normalisés pour essais (ISO 1514 : 2004)

Beschichtungsstoffe – Norm-Probenplatten (ISO 1514 : 2004)

This European Standard was approved by CEN on 2004-11-08.

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, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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Foreword

International Standard

ISO 1514 : 2004 Paints and varnishes – Standard panels for testing, 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 June 2005 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, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 1514 : 2004 was approved by CEN as a European Standard without any modification.

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Introduction

For many of the test methods most widely used for paints and varnishes, the type of panel used and the particular way in which it is prepared for use can effect the test results to a significant degree. Consequently, it is important to standardize as carefully as possible both the panels and the procedures used to prepare the panels prior to painting. It is equally desirable to reduce to a minimum the number of different "standard panels" required for use in a paint testing laboratory.

It is not possible to include in an International Standard all the types of panels and preparation needed for paint testing and, in selecting those described in this standard, a distinction has been drawn between three different situations.

The first situation arises when the paint, varnish or other product is being tested in relation to a particular industrial application. This testing is most conveniently carried out on a panel or substrate that corresponds closely (regarding material, cleaning procedure and subsequent surface preparation, such as grit-blasting or chemical pretreatment) to the actual industrial application involved. In such instances, the only guidance that needs to be given regarding the panel is to state

- a) that the interested parties should reach agreement beforehand on the details of the materials and procedures to be used in preparing the substrate, and
- b) that these should be stated in the test report.

The second situation arises when the test method requires, in order to be carried out, a specially prepared test panel specific to that test; for example, an optically plane panel might be required for gloss measurement. In such instances, a detailed specification for both the panel and the preparation procedure should be given in the description of the test method concerned.

The third situation arises when neither of the above two situations applies. In such cases, the product needs to be tested on an agreed surface which is capable of good reproducibility. It is desirable to use a material that is generally available in standard quality and can be conveniently cleaned or otherwise prepared so as to provide a consistent surface. The fact that this might not necessarily be the type of surface on which the product will be applied in practice is of less significance.

This International Standard is concerned with the third situation. It lays down preparation procedures that are known to be reproducible and gives additional guidance in instances where there might still be doubt because of lack of international uniformity of procedure.

WARNING — This International Standard prescribes the use of chemicals, including hexavalent chromium, and apparatus that can pose health and safety hazards. The standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety practices and to determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard specifies several types of standard panel and describes procedures for their preparation prior to painting. These standard panels are for use in general methods of test for paints, varnishes and related products.

The following types of standard panel are specified:

- a) steel panels, prepared by
 - solvent cleaning,
 - aqueous cleaning,
 - abrasion,
 - phosphate treatment,
 - blast-cleaning (notes for guidance only);
- b) tinplate panels, prepared by
 - solvent cleaning,
 - aqueous cleaning,
 - abrasion (burnishing);
- c) zinc-coated panels, prepared by
 - solvent cleaning,
 - aqueous cleaning,
 - abrasion,
 - chemical treatment;
- d) aluminium panels, prepared by
 - solvent cleaning,
 - aqueous cleaning,
 - abrasion (burnishing),
 - chromate conversion coating;

- e) glass panels, prepared by
 - solvent cleaning,
 - detergent cleaning;
- f) hardboard panels;
- g) paper-faced plasterboard panels;
- h) fibre-reinforced cement panels.

NOTE Panels made from other materials and by other preparation procedures may be used by agreement, when specified for the product under test.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 209-1:1989, *Wrought aluminium and aluminium alloys — Chemical composition and forms of products — Part 1: Chemical composition*

ISO 2695, *Fibre building boards — Hard and medium boards for general purposes — Quality specifications — Appearance, shape and dimensional tolerances*

ISO 2696, *Fibre building boards — Hard and medium boards for general purposes — Quality specifications — Water absorption and swelling in thickness*

ISO 3574, *Cold-reduced carbon steel sheet of commercial and drawing qualities*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 8336, *Fibre-cement flat sheets*

ISO 10546, *Chemical conversion coatings — Rinsed and non-rinsed chromate conversion coatings on aluminium and aluminium alloys*

ISO 11949, *Cold-reduced electrolytic tinplate*

3 Steel panels

3.1 Material

Steel panels intended for general testing (as opposed to panels intended for testing for particular applications and uses) shall be manufactured from flattened mild steel in sheet or strip form. The steel used shall be free from rust, scratches, staining, discoloration and other surface defects. The physical dimensions of the panel shall be as specified in the description of the test method, or as otherwise agreed. Unless otherwise agreed upon between the purchaser and the seller, the steel shall be of one of the types specified below. For certain types of testing, it might be necessary to use steel of a greater thickness than specified for the types listed below.

- a) Type 1 steel is a commercial quality cold-reduced type with a sheet thickness of 0,60 mm to 1,00 mm. Type CR1 steel, conforming to the requirements of ISO 3574, is a suitable commercial quality cold-reduced steel. The steel shall have a matt finish, with a surface roughness (R_a) of 0,63 μm to 1,65 μm . This finish is typical of steel used for painted surfaces on automobiles and appliances.