

Paints and varnishes - Visual comparison of colour of  
paints (ISO 3668:2017)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 3668:2020 sisaldab Euroopa standardi EN ISO 3668:2020 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 3668:2020 consists of the English text of the European standard EN ISO 3668:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

## Paints and varnishes - Visual comparison of colour of paints (ISO 3668:2017)

Peintures et vernis - Comparaison visuelle de la  
couleur des peintures (ISO 3668:2017)

Beschichtungsstoffe - Visueller Vergleich der Farbe von  
Beschichtungen (ISO 3668:2017)

This European Standard was approved by CEN on 4 November 2019.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

The text of ISO 3668:2017 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 3668:2020 by 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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.

This document supersedes EN ISO 3668:2001.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 3668:2017 has been approved by CEN as EN ISO 3668:2020 without any modification.

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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](http://www.iso.org/directives)).

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For an explanation on 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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This third edition cancels and replaces the second edition (ISO 3668:1998), which has been technically revised with the following changes:

- testing using natural daylight has been deleted;
- CIE illuminant FL 11 has been added as third type of artificial light source;
- determination of the film thickness has been deleted because it is irrelevant for the assessment of colour (the paint layer needs to be sufficient in hiding; the hiding power is more important);
- the normative references have been updated;
- the supplementary test conditions previously in Annex A have been integrated in the test report.

# Paints and varnishes — Visual comparison of colour of paints

## 1 Scope

This document specifies a method for the visual comparison of the colour of films of paints or related products against a standard (either a reference standard or a freshly prepared standard) using artificial light sources in a standard booth.

It is not applicable to coatings containing special-effect pigments, e.g. metallic, without previous agreement on all details of illuminating and viewing conditions

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1514, *Paints and varnishes — Standard panels for testing*

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

ISO 11664-2, *Colorimetry — Part 2: CIE standard illuminants*

ISO 18314-1, *Analytical colorimetry — Part 1: Practical colour measurement*

ISO 23603, *Standard method of assessing the spectral quality of daylight simulators for visual appraisal and measurement of colour*

CIE 15.3, *Colorimetry*

CIE 51.2, *A method for assessing the quality of daylight simulators for colorimetry*

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## 4 Principle

The colours of the paint films to be compared are observed under specified illumination and viewing conditions, using a colour matching booth. For the expression of colour difference components (hue, chroma and lightness) a procedure is described, i.e. description by using a particular rating scheme. Assessment of metamerism is also taken into account.