ICS 87.040 SLOVENSKÁ TECHNICKÁ NORMA Január 2020

STN	**Náterové látky Stanovenie krycej schopnosti náteru Časť 1: Metóda Kubelku-Munka na biele a svetlé nátery (ISO 6504-1: 2019)**	**STN EN ISO 6504-1 67 3024**

Paints and varnishes - Determination of hiding power - Part 1: Kubelka-Munk method for white and light-coloured paints (ISO 6504-1:2019)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/19

Obsahuje: EN ISO 6504-1:2019, ISO 6504-1:2019

Oznámením tejto normy sa ruší
STN EN ISO 6504-1 (67 3024) z júla 2006

129938

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 6504-1

June 2019

ICS 87.040

Supersedes EN ISO 6504-1:2006

English Version

Paints and varnishes - Determination of hiding power - Part 1: Kubelka-Munk method for white and light-coloured paints (ISO 6504-1:2019)

Peintures et vernis - Détermination du pouvoir masquant - Partie 1: Méthode de Kubelka-Munk pour les peintures blanches et les peintures claires (ISO 6504-1:2019)

Beschichtungsstoffe - Bestimmung des Deckvermögens - Teil 1: Verfahren nach Kubelka-Munk für weiße und helle Beschichtungen (ISO 6504-1:2019)

This European Standard was approved by CEN on 13 May 2019.

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 CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Ref. No. EN ISO 6504-1:2019 E

Contents

Page

European foreword

This document (EN ISO 6504-1:2019) 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 December 2019, and conflicting national standards shall be withdrawn at the latest by December 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.

This document supersedes EN ISO 6504-1:2006.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 6504-1:2019 has been approved by CEN as EN ISO 6504-1:2019 without any modification.

INTERNATIONAL STANDARD

ISO 6504-1

Second edition
2019-05

Paints and varnishes — Determination of hiding power —

Part 1: Kubelka-Munk method for white and light-coloured paints

Peintures et vernis — Détermination du pouvoir masquant —

Partie 1: Méthode de Kubelka-Munk pour les peintures blanches et les peintures claires

Reference number
ISO 6504-1:2019(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test method for paints and varnishes.*

This second edition cancels and replaces the first edition (ISO 6504-1:1983), which has been technically revised. The main changes compared to the previous edition are as follows:

a) the normative references in Clause 2 have been updated;

b) Clause 3 for terms and definitions has been added;

c) Clause 7 for limitations has been added;

d) the term "contrast ratio" has been changed to "hiding power" throughout the text;

e) it has been clarified that the reflectance R_g needs to be measured and that the graphs in Annex A and values in Table B.1 are only examples for R_g = 0,80.

A list of all parts in the ISO 6504 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

ISO 6504-3[1] specifies a method for determining the hiding power of paints at a fixed spreading rate, by applying paint films to black and white charts and to polyester film respectively. It depends on the observation that there is a linear relationship between hiding power and reciprocal film thickness, at least over a limited range of film thickness.

Hiding power of paints is generally defined as the spreading rate required to give a hiding power of 98 %. To determine this by the method specified in ISO 6504-3[1] would be time-consuming and require considerable extrapolation which often exceeds the limit of linearity of the relationship between hiding power and spreading rate. Therefore, this method for the determination of hiding power, involving the Kubelka-Munk (K-M) equations which relate scattering and absorption coefficients to optical properties, has also been standardized.

INTERNATIONAL STANDARD **ISO 6504-1:2019(E)**

Paints and varnishes — Determination of hiding power —

Part 1:
Kubelka-Munk method for white and light-coloured paints

1 Scope

This document specifies a method for determining the hiding power (spreading rate necessary to give a hiding power of 98 %) of white or light-coloured paints. It is applicable to paint films having the tristimulus value of $Y \geq 70$ and hiding power > 80 %. It is not applicable to fluorescent or metallic paints.

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 1513, *Paints and varnishes — Examination and preparation of test samples*

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

ISO 2811-1, *Paints and varnishes — Determination of density — Part 1: Pycnometer method*

ISO 3251, *Paints, varnishes and plastics — Determination of non-volatile-matter content*

ISO 4618, *Paints and varnishes — Terms and definitions*

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

