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BSI Standards Publication

Paints, varnishes and printing inks – Determination of fineness of grind

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National foreword

This British Standard is the UK implementation of EN ISO 1524:2020. It is identical to ISO 1524:2020. It supersedes BS EN ISO 1524:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Paints, varnishes and printing inks - Determination of fineness of grind (ISO 1524:2020)

Peintures, vernis et encres d'imprimerie
- Détermination de la finesse de
broyage (ISO 1524:2020)

Beschichtungsstoffe und Druckfarben - Bestimmung
der Mahlfeinheit (Körnigkeit) (ISO 1524:2020)

This European Standard was approved by CEN on 19 June 2020.

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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
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN ISO 1524:2020) 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of an identical text or by endorsement, at the latest by January 2021, and conflicting national standards shall be withdrawn at the latest by January 2021.

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 1524:2013.

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 1524:2020 has been approved by CEN as EN ISO 1524:2020 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).

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 methods for paints and varnishes* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 1524:2013), which has been technically revised. The main changes compared to the previous edition are as follows:

- the material of the gauges has been changed from hardened steel only to allow also other materials;
- gauges with three grooves have been added;
- the description of the scraper has been modified;
- a second example of a gauge reading has been added in [Figure 3](#);
- the text has been editorially revised and the normative references have been updated.

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.

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Paints, varnishes and printing inks – Determination of fineness of grind

1 Scope

This document specifies a method for determining the fineness of grind of paints, inks and related products by use of a suitable gauge, graduated in micrometres.

It is applicable to all types of liquid paints and related products, except products containing pigments in flake form (e.g. glass flakes, micaceous iron oxides, zinc flakes).

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 4618, *Paints and varnishes — Terms and definitions*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following apply.

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

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

3.1

fineness of grind

reading obtained on a standard gauge under specified conditions of test, indicating the depth of the groove(s) of the gauge at which discrete solid particles in the product are readily discernible

4 Apparatus

4.1 Gauge, consisting of a block of a hardened steel or other suitable material, e.g. 175 mm long, 65 mm wide and 13 mm thick.

At least for use with water-dilutable paints, a block of stainless steel should be used.

The top surface of the block shall be both plane and ground smooth and shall contain one, two or three grooves approximately 140 mm long and 12,5 mm wide parallel to the longer sides of the block. The depth of each groove shall be uniformly tapered along its length from a suitable depth (for example 25 µm, 50 µm or 100 µm) at one end to zero at the other end and shall be graduated as specified in [Table 1](#). A diagram showing two typical gauges is given in [Figure 1](#).