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Pigments, dyestuffs and extenders - Terminology - Part  
1: General terms (ISO 18451-1:2019)

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EUROPEAN STANDARD

**EN ISO 18451-1**

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English Version

## Pigments, dyestuffs and extenders - Terminology - Part 1: General terms (ISO 18451-1:2019)

Pigments, colorants et matières de charge -  
Terminologie - Partie 1: Termes généraux (ISO 18451-  
1:2019)

Pigmente, Farbstoffe und Füllstoffe - Begriffe - Teil 1:  
Allgemeine Begriffe (ISO 18451-1:2019)

This European Standard was approved by CEN on 10 May 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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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN ISO 18451-1:2019) has been prepared by Technical Committee ISO/TC 256 "Pigments, dyestuffs and extenders" in collaboration with Technical Committee CEN/TC 298 "Pigments and extenders" 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of an identical text or by endorsement, at the latest by November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.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 18451-1:2017.

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 18451-1:2019 has been approved by CEN as EN ISO 18451-1:2019 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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 256, *Pigments, dyestuffs and extenders*.

This second edition cancels and replaces the first edition (ISO 18451-1:2015), which has been technically revised. The main changes compared to the previous edition are as follows:

- the definition for colour difference (3.21) has been aligned with ISO 18314-4;
- the definition for extender (3.34) has been aligned with ISO 3262-1;
- the definitions for full shade (3.41) and mass tone (3.69) have been interchanged to align them with the practical use and with definitions in other standards, e.g. ISO 787-25;
- a note has been added to definitions 3.34 (extender) and 3.81 (nanoextender) concerning the use of the term “filler” as synonym for “extender” in some industries, e.g. rubber and paints;
- the terms nanomaterial (3.82), engineered nanomaterial (3.82.1), manufactured nanomaterial (3.82.2) and incidental nanomaterial (3.82.3) have been added;
- “may” has been changed to “can” in several notes;
- the text has been editorially revised.

A list of all parts in the ISO 18451 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 <https://www.iso.org/members.html>.

In addition to text written in the official ISO languages (English, French or Russian), this document gives text in German. This text is published under the responsibility of the member body for Germany (DIN) and is given for information only. Only the text given in the official languages can be considered as ISO text.

# Pigments, dyestuffs and extenders — Terminology —

## Part 1: General terms

### 1 Scope

This document defines terms that are used in the field of pigments, dyestuffs and extenders.

For some terms, reference is made to ISO 4618 in which also terms and definitions for colourants are given, relating to their use in coating materials.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

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

##### **abrasiveness**

property of *pigments* (3.96) or *extenders* (3.34) and their preparations to cause wear at the used apparatus by mechanical action

#### 3.2

##### **aluminium pigment**

*pigment* (3.96) consisting essentially of finely divided pure aluminium Al 99,5

Note 1 to entry: The aluminium particles have lamellar form.

#### 3.3

##### **apparent density after tamping**

ratio of mass to volume of a powder after compressing (e.g. by tamping or vibration) under specified conditions

#### 3.4

##### **barite**

naturally occurring barium sulphate, BaSO<sub>4</sub>

#### 3.5

##### **binder demand**

amount of a binder or binder solution that is required to obtain, under specified dispersion conditions, a mass of defined rheology

#### 3.6

##### **bismuth vanadate pigment**

yellow inorganic *pigment* (3.96) consisting of bismuth vanadate with or without isomorphous inclusion of bismuth molybdate