



SLOVENSKI STANDARD SIST EN ISO 18451-1:2019

01-september-2019

Nadomešča:

SIST EN ISO 18451-1:2017

Pigmenti, barvila in polnila - Terminologija - 1. del: Splošni izrazi (ISO 18451-1:2019)

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

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

(standards.iteh.ai)

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

<https://standards.iteh.ai/catalog/standards/sist/4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

Ta slovenski standard je istoveten z: EN ISO 18451-1:2019

ICS:

01.040.87	Industrija barv (Slovarji)	Paint and colour industries (Vocabularies)
87.060.10	Pigmenti in polnila	Pigments and extenders

SIST EN ISO 18451-1:2019

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 18451-1:2019](#)

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

EUROPEAN STANDARD

EN ISO 18451-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 01.040.87; 87.060.10

Supersedes EN ISO 18451-1:2017

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.

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, 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 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

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 18451-1:2019](https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019)
<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

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.

iTeh STANDARD PREVIEW
Endorsement notice
(standards.iteh.ai)

The text of ISO 18451-1:2019 has been approved by CEN as EN ISO 18451-1:2019 without any modification.

[SIST EN ISO 18451-1:2019
https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019](https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 18451-1:2019](#)

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

INTERNATIONAL
STANDARD

ISO
18451-1

Second edition
2019-05

**Pigments, dyestuffs and extenders —
Terminology —**

**Part 1:
General terms**

Pigments, colorants et matières de charge — Terminologie —

Partie 1: Termes généraux

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 18451-1:2019](https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019)

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>



Reference number
ISO 18451-1:2019(E)

© ISO 2019

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 18451-1:2019](https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019)

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
Bibliography	19
Alphabetical index	20

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 18451-1:2019](https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019)

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

ISO 18451-1:2019(E)

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 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. (standards.iteh.ai)

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/>

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d66682547/sist-en-iso-18451-1-2019>

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, BaSO₄

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

ISO 18451-1:2019(E)

3.7

blanc fixe

synthetic barium sulphate, produced by a precipitation process

Note 1 to entry: Naturally occurring barium sulphate is called *barite* (3.4).

3.8

bleeding

migration (3.76) of a *colourant* (3.19) from a material into another material being in contact with it

3.9

blooming

migration (3.76) of a *colourant* (3.19) to the surface of the coloured material

3.10

cadmium pigment

inorganic coloured pigment consisting essentially of cadmium zinc sulphide (yellow pigments) or of mixed crystals of cadmium sulphide and cadmium selenide (red pigments)

3.11

calcined clay**calcined aluminium silicate**

aluminium silicate ($\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$), lamellar, mainly amorphous in structure as determined by X-ray diffraction, produced from natural clay by thermal dehydration, consisting partly of crystalline mullite $3(\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2)$

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3.12 Calcite terms

3.12.1

calcite**crystalline calcium carbonate**

<mineralogy> calcium carbonate of trigonal crystal structure

SIST EN ISO 18451-1:2019

<https://standards.iteh.ai/catalog/standards/sist/f4e01c0e-4a50-41be-b3cb-5d1d6682547/sist-en-iso-18451-1-2019>

3.12.2

calcite**crystalline calcium carbonate**

<pigments> designation for *extenders* (3.34) produced from calcareous spar of marble or for precipitated calcitic calcium carbonates

3.13

carbon black

pigment (3.96) synthetically produced by thermally oxidative cracking of aromatic oils and gases

Note 1 to entry: It is distinguished between carbon black and industrial carbon black.

3.14

ceramic decoration colour

preparation consisting of coloured or colourless glass powder and inorganic *pigments* (3.96) for coating of ceramics or glass by melting at temperatures above 450 °C

3.15

chalking

appearance of a loosely adherent fine *powder* (3.98) on the surface of a film or pigmented plastic arising from the degradation of the binder

3.16

chroma

difference of a *colour* (3.20) from an achromatic colour of the same lightness