



SLOVENSKI STANDARD SIST EN ISO 4618:2023

01-maj-2023

Nadomešča:

SIST EN ISO 4618:2015

Barve in laki - Slovar (ISO 4618:2023)

Paints and varnishes - Vocabulary (ISO 4618:2023)

Beschichtungsstoffe - Begriffe (ISO 4618:2023)

Peintures et vernis - Vocabulaire (ISO 4618:2023)

Ta slovenski standard je istoveten z: **EN ISO 4618:2023**

ICS:

01.040.87	Industrija barv (Slovarji)	Paint and colour industries (Vocabularies)
87.040	Barve in laki	Paints and varnishes

SIST EN ISO 4618:2023

en,fr,de

EUROPEAN STANDARD

EN ISO 4618

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2023

ICS 01.040.87; 87.040

Supersedes EN ISO 4618:2014

English Version

Paints and varnishes - Vocabulary (ISO 4618:2023)

Peintures et vernis - Vocabulaire (ISO 4618:2023)

Beschichtungsstoffe - Begriffe (ISO 4618:2023)

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

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European foreword

This document (EN ISO 4618:2023) 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of an identical text or by endorsement, at the latest by August 2023, and conflicting national standards shall be withdrawn at the latest by August 2023.

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.

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INTERNATIONAL
STANDARD

ISO
4618

Third edition
2023-02

Paints and varnishes — Vocabulary

Peintures et vernis — Vocabulaire

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Reference number
ISO 4618:2023(E)

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Published in Switzerland

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ISO 4618:2023(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 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*, 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 third edition cancels and replaces the second edition (ISO 4618:2014), which has been technically revised.

The main changes are as follows:

- the title has been changed from “Terms and definitions” to “Vocabulary”;
- the following terms have been added: brush marks, catalyst, clouding, cold checking, conventional spraying, crater, creeping, dirt-resistant paint, distinctness of image, DOI, drawdown blade, dry spray, film applicator, flocculate, nanocomposite coating, nanoparticle, particle, pigment-binder ratio, primary particle, semi-volatile organic compound, semi-volatile organic compound content, SVOC, SVOC content, SVOCC;
- the following terms have been deleted: after tack, brush-drag, bubbling, cratering, cutting-in, dilatant flow behaviour, flash point, flocculation, flow properties, graining, marbling, pseudoplastic flow behaviour, rheopexy, rheoplectic behaviour, rust back, shear-thickening flow behaviour, shear-thinning behaviour, sheen, tack-free, thixotropic behaviour, thixotropy, UV-curing, viscoelasticity, viscosity, yield point, yield stress, yield value;
- many definitions have been amended;
- the text has been editorially revised and the bibliography and scope 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.

Paints and varnishes — Vocabulary

1 Scope

This document defines terms used in the field of coating materials (paints, varnishes and raw materials for paints and varnishes).

Terms relating to specific applications and properties are dealt with in standards concerning those applications and properties, including corrosion protection (see the ISO 12944 series), coating powders (see ISO 8130-14), electro-deposition coatings (see ISO 22553-1) and rheology (see ISO 3219-1).

Terms on nanotechnologies are harmonized with the ISO 80004 series.

Terms on pigments and extenders are harmonized with ISO 18451-1.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org/>

3.1

abrasion

<testing of coatings> process of removing matter or deformation of a surface by friction as a result of rubbing

3.2

abrasion

<surface preparation> process of removing matter in the surface as a result of friction or impact

3.3

accelerator

additive (3.6) to increase the speed of chemical reactions

3.4

acid value

mass in milligrams of potassium hydroxide (KOH) required to neutralize 1 g of a sample under specified test conditions

3.5

acrylic resin

synthetic resin (3.249) resulting from the polymerization or copolymerization of acrylic and/or methacrylic monomers, frequently together with other monomers

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**3.6
additive**

substance, which, when added in small quantities to a *coating material* (3.48), improves or modifies one or more properties

Note 1 to entry: A surfactant or surface-active agent is an additive that has the fundamental property of reducing the interfacial tension between a solid and liquid or a liquid and air.

**3.7
adhesion**

phenomenon of attachment at the interface between a solid surface and another material caused by molecular forces

Note 1 to entry: Adhesion should not be confused with *cohesion* (3.52).

**3.8
adhesive strength**

force required to detach a *coating* (3.46) from a *substrate* (3.245) or another coating

**3.9
aerosol**

solid or liquid particles in *dispersion* (3.83) in a gaseous medium

**3.10
ageing**

change of one or more initial properties of a *coating* (3.46) during the passage of time

**3.11
alkyd resin**

synthetic resin (3.249) resulting from the polycondensation of fatty acids (or oils) and carbonic acids with polyols

**3.12
amino resin**

synthetic resin (3.249) resulting from the condensation of urea or melamine or derivatives such as benzo-guanamine with formaldehyde

Note 1 to entry: These *resins* (3.211) are often etherified with alcohols.

**3.13
anti-blocking agent**

additive (3.6) that usually rises to the surface during the *drying* (3.88) process and thus prevents *blocking* (3.27)

**3.14
anti-foaming agent**

additive (3.6) that prevents foaming or reduces the foaming tendency of a *coating material* (3.48)

Note 1 to entry: See also *defoaming agent* (3.74).

**3.15
anti-fouling paint**

coating material (3.48) applied on a structure to prevent the accumulation of fouling or biological growth

**3.16
anti-settling agent**

additive (3.6) that prevents or retards the *settling* (3.229) of *pigments* (3.193) and/or *extenders* (3.104) during storage of a *coating material* (3.48)

3.17**anti-skinning agent**

additive (3.6) that prevents or retards *skinning* (3.236) caused by oxidation during storage

3.18**apparent density**

ratio between the mass and the volume of a non-tamped powder

Note 1 to entry: See also *bulk density* (3.35) and *tamped density* (3.251).

3.19**appearance**

visual characteristics of a surface

Note 1 to entry: Appearance is not a single measure or a general property of a material. It is not characterized by a single parameter but a combination of *colour* (3.55), *gloss* (3.132), *distinctness of image* (3.85), *haze* (3.136), surface structure, *texture* (3.254), *orange peel* (3.178), etc.

Note 2 to entry: The word appearance has no special paint related meaning but is included here for clarification for non-English speakers.

3.20**application rate**

quantity of a *coating material* (3.48) that is required to produce, under defined working conditions, a dry *film* (3.111) or *coat* (3.45) of given thickness on unit area

3.21**barrier coating material**

coating material (3.48) used to isolate a *coating system* (3.51) from the *substrate* (3.245) to which it is applied, in order to prevent chemical or physical interaction

Note 1 to entry: A barrier coating material e.g. prevents *bleeding* (3.25) or migration from an underlying *coat* (3.45) or substrate.

Note 2 to entry: The German term "Isoliermittel" which is still currently used should be avoided, in order to prevent confusion with heat- and sound-deadening materials as well as with electrical insulators.

3.22**binder**

non-volatile part of a *medium* (3.153)

Note 1 to entry: The main purpose of the binder is to build-up a network around the coating components.

3.23**biocide**

additive (3.6) added to a *coating material* (3.48) to prevent organisms responsible for microbiological degradation from attacking a *substrate* (3.245), a coating material or a *film* (3.111) thereof

3.24**blast-cleaning**

impingement of a kinetic-energy stream of an abrasive on the surface to be prepared

3.25**bleeding, verb**

migration of a coloured substance from a material into another material in contact with it, which can produce an undesirable staining or discoloration

Note 1 to entry: The substance can be a constituent of the *coating* (3.46) or of the *substrate* (3.245) to which the coating is applied.

3.26**blister**

convex deformation in a coating, arising from local detachment of one or more of the constituent coats