

Zinc dust pigments for paints - Specifications and test methods (ISO 3549:2024)

EESTI STANDARDI EESSÕNA

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English Version

Zinc dust pigments for paints - Specifications and test methods (ISO 3549:2024)

Pigments à base de poussière de zinc pour peintures -
Spécifications et méthodes d'essai (ISO 3549:2024)

Zinkstaub-Pigmente für Beschichtungsstoffe -
Anforderungen und Prüfverfahren (ISO 3549:2024)

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European foreword

This document (EN ISO 3549:2024) 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of an identical text or by endorsement, at the latest by August 2024, and conflicting national standards shall be withdrawn at the latest by August 2024.

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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Endorsement notice

The text of ISO 3549:2024 has been approved by CEN as EN ISO 3549:2024 without any modification.

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Foreword

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 256, *Pigments, dyestuffs and extenders*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 298, *Pigments and extenders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 3549:1995), which has been technically revised.

The main changes are as follows:

- the maximum residue on the 45 µm sieve has been changed from 5 % mass fraction to 0,5 % mass fraction;
- three types of zinc dust pigments (I, II and III) have been introduced with different requirements;
- inductively coupled plasma-optical emission spectroscopy (ICP-OES) has been added as an analytical technique used for elemental analysis;
- the nominal size of sieve aperture has been changed from 125 µm – 90 µm – 45 µm to 125 µm – 75 µm – 45 µm;
- CAS Registry Numbers® have been added to the reagents;
- the normative references have been updated;
- a bibliography has been added.

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.

Zinc dust pigments for paints — Specifications and test methods

1 Scope

This document specifies the requirements and corresponding test methods for zinc dust pigments suitable for use in protective coatings.

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 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

zinc dust pigment

fine grey powder of essentially spheroidal particles, mainly consisting of metallic zinc

Note 1 to entry: Zinc dust pigments for paints can vary in their metallic zinc content, chemical purity, particle shape, particle size distribution, mean and maximum diameter, etc. These variations are all likely to have an influence on the zinc dust behaviour in paints with regard to parameters such as dispersibility, fineness of grind, reactivity, electrical conductivity and packing properties.

4 Required characteristics and tolerances

4.1 For zinc dust pigments conforming to this document, the essential requirements are specified in [Table 1](#) and [Table 2](#).