

Paints and varnishes - Evaluation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 6: Assessment of degree of chalking by tape method (ISO 4628- 6:2023)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 4628-6:2023 sisaldab Euroopa standardi EN ISO 4628-6:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 25.10.2023.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 4628-6:2023 consists of the English text of the European standard EN ISO 4628-6:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 25.10.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 87.040

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EUROPEAN STANDARD

EN ISO 4628-6

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2023

ICS 87.040

Supersedes EN ISO 4628-6:2011

English Version

Paints and varnishes - Evaluation of quantity and size of defects, and of intensity of uniform changes in appearance
- Part 6: Assessment of degree of chalking by tape method
(ISO 4628-6:2023)

Peintures et vernis - Évaluation de la quantité et de la dimension des défauts, et de l'intensité des changements uniformes d'aspect - Partie 6: Évaluation du degré de farinage par la méthode du ruban adhésif (ISO 4628-6:2023)

Beschichtungsstoffe - Beurteilung der Menge und der Größe von Schäden und der Intensität von gleichmäßigen Veränderungen im Aussehen - Teil 6: Bewertung des Kreidungsgrades nach dem Klebebandverfahren (ISO 4628-6:2023)

This European Standard was approved by CEN on 15 July 2023.

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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

European foreword

This document (EN ISO 4628-6:2023) 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 April 2024, and conflicting national standards shall be withdrawn at the latest by April 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.

This document supersedes EN ISO 4628-6:2011.

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Endorsement notice

The text of ISO 4628-6:2023 has been approved by CEN as EN ISO 4628-6:2023 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 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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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 fourth edition cancels and replaces the third edition (ISO 4628-6:2011), which has been technically revised. The main changes are as follows:

- the title has been shortened;
- the definition of chalking (3.1) has been changed to the entry in ISO 4618:2023;
- the normative references have been updated.

A list of all parts in the ISO 4628 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 www.iso.org/members.html.

Introduction

ISO 4628-1 specifies the system for designating the quantity and size of defects and the intensity of uniform changes of coatings, and outlines the general principles of the system. This system is intended to be used especially for defects caused by ageing and weathering, and for uniform changes such as colour changes, for example yellowing.

The other parts of the ISO 4628 series provide pictorial standards or other means for evaluating particular types of defect. As far as possible, already existing evaluation schemes have been used as the basis.

The chalking scale used in the first edition (i.e. ISO 4628-6:1990¹⁾, Figure 1), in the third edition (i.e. ISO 4628-6:2011¹⁾, Figure 1) and in this document, consists of photographic pictures of adhesive tapes with different amounts of pigment particles adhering to them. The pigment particles are not evenly distributed over each tape. The lower ratings in particular (i.e. 1 to 3) give the impression of cloudiness. Nevertheless, all five ratings in the scale used in the first edition (ISO 4628-6:1990) and in this document are sufficiently different for visual-assessment purposes.

The scale used in the second edition (i.e. ISO 4628-6:2007¹⁾, Figure 1) was computer-generated. Thus, the white dots representing the pigment particles were distributed very evenly over the tape, with the result that not all the ratings differed sufficiently well from each other for visual assessment to be carried out. While ratings 0,5 to 3,0 on the black background on the scale in ISO 4628-6:2007 could be differentiated sufficiently well from each other, it was hardly possible to visually differentiate between ratings above 3,0, especially ratings 4 and 5. On the white background, the difference between ratings 0,5, 1,0 and 1,5 was not easy to discern. The differences between ratings 1,5 to 5,0 were more evident, however.

Comparing the scale in ISO 4628-6:1990 with the scale in ISO 4628-6:2007, it would appear that rating 1 on the scale in ISO 4628-6:1990 corresponded to 0,5 on the scale in ISO 4628-6:2007, and rating 2 on the scale in ISO 4628-6:1990 corresponded to 1 on the scale in ISO 4628-6:2007.

It was therefore decided that the scale in ISO 4628-6:2007 was unsuitable for use in the visual assessment of the degree of chalking of paints over the whole rating scale from 0,5 to 5,0.

1) Withdrawn.

Paints and varnishes — Evaluation of quantity and size of defects, and of intensity of uniform changes in appearance —

Part 6: Assessment of degree of chalking by tape method

IMPORTANT — For the assessment of the degree of chalking by the tape method, it is necessary to use the pictorial reference standards contained in this document. Owing to the fact that electronic copies of these standards are subject to change when viewed on screen or printed, it is recommended that only the pictorial standards contained in printed copies of this document purchased from ISO member bodies or their distributors be used when comparing test results.

1 Scope

This document provides pictorial reference standards for designating the degree of chalking of paint coatings. It also describes a method by which the degree of chalking is rated. In using this method, it is essential that care be taken to distinguish between true degradation products and adhering dirt, particularly when chalking is slight.

2 Normative references

There are no normative references in this document.

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

chalking

surface change in the form of loose adherent powder which appears with degradation of a coating

[SOURCE: ISO 4618:2023, 3.38]

4 Principle

The chalking is removed from the coating under test using an adhesive tape. The chalking adhering to the tape is examined against a contrasting background (either black or white, whichever gives the greater contrast) and the degree of chalking is assessed with reference to a rating scale.