
Barve in laki - Vrednotenje lastnosti premaznih sistemov pri nanašanju - 2. del: Barvna stabilnost, kritnost, ponovno raztapljanje, absorpcija pri prašenju, močljivost, struktura površine in lisavost (ISO/DIS 28199-2:2020)

Paints and varnishes - Evaluation of properties of coating systems related to the application process - Part 2: Colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling (ISO/DIS 28199-2:2020)

Beschichtungsstoffe - Beurteilung applikationsbedingter Eigenschaften von Beschichtungssystemen - Teil 2: Farbstabilität, Prozessdeckvermögen, Anlösen, Spritznebelaufnahme, Benetzung, Oberflächenstruktur und Wolkigkeit (ISO/DIS 28199-2:2020)

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Peintures et vernis -- Évaluation des propriétés des systèmes de revêtement liées au mode d'application -- Partie 2: Stabilité des couleurs, pouvoir masquant du procédé, détrempe, absorption des pertes de peinture à la pulvérisation, mouillage, texture superficielle et marbrures (ISO/DIS 28199-2:2020)

Ta slovenski standard je istoveten z: prEN ISO 28199-2

ICS:

87.040 Barve in laki Paints and varnishes

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Paints and varnishes — Evaluation of properties of coating systems related to the application process —

Part 2:

Colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling

*Peintures et vernis — Évaluation des propriétés des systèmes de revêtement liées au mode d'application —
Partie 2: Stabilité des couleurs, pouvoir masquant du procédé, détrempe, absorption des pertes de peinture à la pulvérisation, mouillage, texture superficielle et marbrures*

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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).

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*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 28199-2:2009), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the assessment of mottling (10.2) has been divided into measuring techniques and visual evaluation;
- limit values have been introduced for long-wavelength and short-wavelength surface textures (9.2.1);
- the normative references have been updated;
- the standard has been editorially revised.

A list of all parts in the ISO 28199 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

In many areas (e.g. car manufacture, industrial coatings, coatings for plastics) the coating materials used are adapted to the specific application equipment and technologies of the particular user. A coating material is, therefore, to be understood as a semi-manufactured product that only receives its final form in combination with the specific application conditions. The adaptation to the application conditions is therefore decisive for the quality of the coated product.

The test methods specified in ISO 28199 are based on studies by a Working Group of the European Council for Automotive R&D (EUCAR).

They may be used for evaluation of coating materials in research, development and production with regard to their suitability and safety for industrial processes, and error analysis. The properties of coating materials and coatings to be evaluated depend on the film thickness, so a coating system of increasing thickness is applied to a test panel under defined conditions.

The following characteristics are measured (in accordance with ISO 28199-1):

- film thickness in accordance with ISO 2808;
- surface texture;
- colour in accordance with ISO 18314-1;
- mottling;
- gloss in accordance with ISO 2813.

In combination with visual assessment, the following properties are determined:

- colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling (this part of ISO 28199);
- tendency to sagging, formation of bubbles, pinholing and hiding power (ISO 28199-3).

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Paints and varnishes — Evaluation of properties of coating systems related to the application process —

Part 2:

Colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling

1 Scope

This document specifies methods for the determination of colour stability/colour evaluation, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling of coating materials applied to a test panel under defined conditions.

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 18314-1, *Analytical colorimetry — Part 1: Practical colour measurement*

ISO/DIS 28199-1:2020, *Paints and varnishes — Evaluation of properties of coatings related to the application process — Part 1: Relevant vocabulary and preparation of test panels*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 28199-1.

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/>

4 Colour stability/colour evaluation

4.1 General

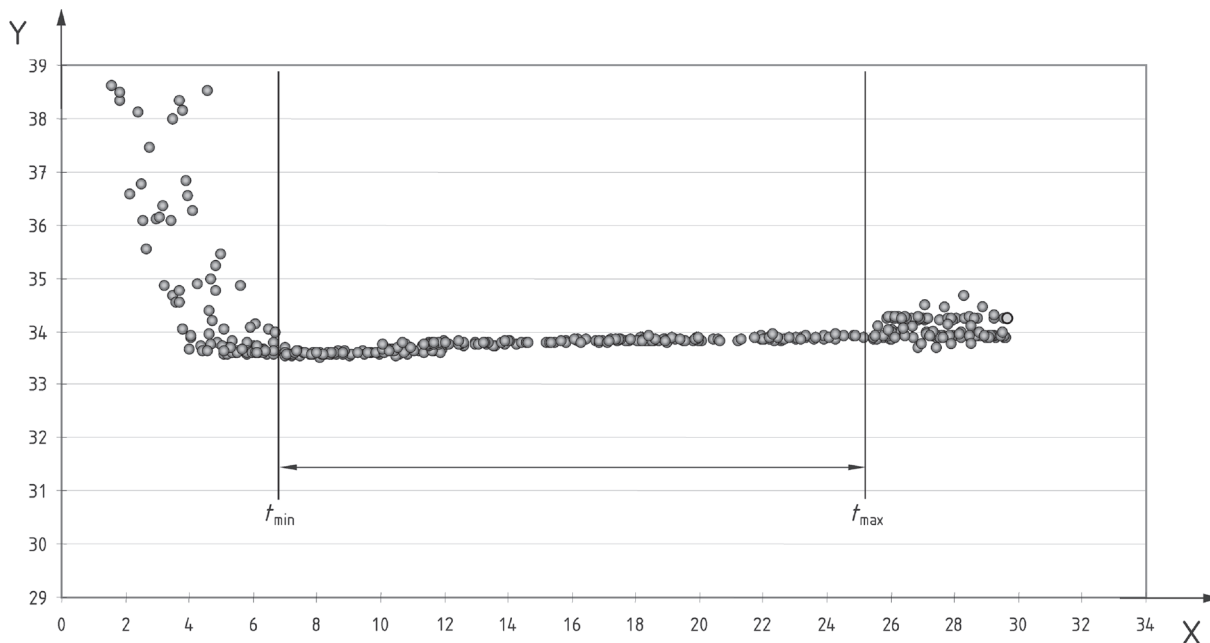
Colour stability is determined by evaluation of the values measured for a wedge-shaped base coat and constant-thickness clear coat, obtained in accordance with 9.4 of ISO/DIS 28199-1:2020.

4.2 Evaluation

Plot the colour space values determined for the wedge-shaped base coat and constant-thickness clear coat in accordance with ISO/DIS 28199-1:2020, 9.4, against the film thickness of the base coat, and evaluate the curve. Determine the lowest (t_{\min}) and the highest (t_{\max}) film thicknesses at which the curve is approximately parallel to the X axis. With regard to parallelism, a tolerance range or a minimum gradient is agreed. Figures 1 and 2 show examples of lightness (L^*) plotted against film thickness. The Y axis can also show the colour values a^* , b^* , C^* and h .

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The range of colour stability ends at that film thickness at which the curve is no longer parallel to the X axis.



Key

- X film thickness (µm)
- Y lightness
- t_{min} start of colour stability
- t_{max} end of colour stability

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Figure 1 — Graph showing colour stability (idealized)