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**Barve in laki - Ugotavljanje jasnosti slike (stopnja ostrine odsevnih ali prosojnih slik) (ISO 20266:2018)**

Paints and varnishes - Determination of image clarity (degree of sharpness of reflected or transmitted image) (ISO 20266:2018)

Beschichtungsstoffe - Bestimmung der Deutlichkeit von Bildern (Grad der Schärfe von reflektierten oder durchscheinenden Bildern) (ISO 20266:2018)

Peintures et vernis - Détermination de la netteté de l'image (degré de netteté de l'image réfléchie ou transmise) (ISO 20266:2018)

**Ta slovenski standard je istoveten z: prEN ISO 20266**

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Barve in laki

Paints and varnishes

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# INTERNATIONAL STANDARD

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20266**

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## **Paints and varnishes — Determination of image clarity (degree of sharpness of reflected or transmitted image)**

*Peintures et vernis — Détermination de la netteté de l'image (degré  
de netteté de l'image réfléchie ou transmise)*

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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](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

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## ISO 20266:2018(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](http://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](http://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](http://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*.

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## Introduction

Visual assessment of the image clarity of paint films (coatings) is carried out by evaluating the sharpness of an image reflected from a surface, using a specified incident angle, for reflection. For transmission, image sharpness is evaluated by viewing a suitable target through the paint films. The degree of image clarity is influenced by the clearness, surface irregularities and haziness of a surface(s). Gloss values and haze values do not correctly assess this phenomenon. Image clarity is not the same as, and should not be confused with, gloss or haze. Therefore, standardized methods for determining the optical parameter of image clarity are needed.

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# Paints and varnishes — Determination of image clarity (degree of sharpness of reflected or transmitted image)

## 1 Scope

This document specifies an instrumental method for determining the image clarity on paint films (coatings) by measuring reflection from the specimen surface or transmission through the specimen.

The method can be applied only to a flat surface.

## 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 1513, *Paints and varnishes — Examination and preparation of test samples*

ISO 1514, *Paints and varnishes — Standard panels for testing*

ISO 2808, *Paints and varnishes — Determination of film thickness*

ISO 4618, *Paints and varnishes — Terms and definitions*

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

ISO 17221, *Plastics — Determination of image clarity (degree of sharpness of reflected or transmitted image)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following apply.

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/>

### 3.1

#### image clarity

degree of sharpness of an image reflected by a specimen or transmitted through a specimen

Note 1 to entry: Image clarity is expressed as a percentage (%).

[SOURCE: ISO 17221:2014, 3.1]

## 4 Principle

For the measurement of image clarity, a lamp illuminates the narrow source aperture-slit. The collimating lens projects a parallel beam upon the specimen. The image is either reflected from or transmitted through the specimen, as appropriate. The image is received by the de-collimating lens and focused upon the optical mask. The light passing through the optical mask is received by the light receptor. This resultant signal is processed yielding image clarity values.

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### 5 Limitations

Temperature and humidity are important parameters affecting test results. Deviations from the requirements specified can lead to results that are not comparable. However, the interested parties may agree upon alternative parameters and these parameters shall be reported.

### 6 Apparatus

The apparatus shall:

- include a light source, a slit, an optical mask, a black glass standard meeting the requirements of ISO 17221, and
- have the geometry characteristics and structure specified in ISO 17221.

### 7 Sampling

Take a representative sample of the product to be tested (or of each product in the case of a multi-coat system), in accordance with ISO 15528.

Examine and prepare each sample for testing, in accordance with ISO 1513.

### 8 Test specimen

#### 8.1 Substrate

Unless otherwise agreed, select the substrate in regard to the intended practical use from the substrates described in ISO 1514. The test specimen shall be plane and free of deformations (see [Annex A](#)).

#### 8.2 Preparation and coating

Prepare each test specimen in accordance with ISO 1514 and coat it in accordance with the specified method with the coating material or multi-coat system to be tested.

#### 8.3 Drying and conditioning

Dry/harden (stove, if applicable) and age, if applicable, each coated test specimen for the specified period of time and under the specified conditions. Condition the coated test specimens before the test at  $(23 \pm 2) ^\circ\text{C}$  and a relative humidity of  $(50 \pm 5) \%$  for at least 16 h. Other conditions for conditioning shall be agreed and indicated in the test report.

Finger prints, dust, or other contaminations on the surface lead to changed and/or imprecise image clarity values. Consequently, the coated test specimens shall be stored and handled accordingly.

In the case of aged samples, the preparation has to eliminate the potential dust, without altering the surface.

#### 8.4 Thickness of coating

Determine the dry film thickness of the coating, in micrometres, in accordance with one of the methods specified in ISO 2808.

For comparative measurements, the film thicknesses shall correspond.