

STN	Papier tissue a výrobky tissue Časť 16: Určenie optických vlastností Opacita (papierová podložka) Metóda difúzneho činiteľa odrazu (ISO 12625-16: 2024)	STN EN ISO 12625-16 50 6301
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Tissue paper and tissue products - Part 16: Determination of optical properties - Diffuse reflectance method for opacity (paper backing) (ISO 12625-16:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/24

Obsahuje: EN ISO 12625-16:2024, ISO 12625-16:2024

Oznámením tejto normy sa ruší
STN EN ISO 12625-16 (50 6301) z decembra 2016

138856

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD

EN ISO 12625-16

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2024

ICS 85.080.20

Supersedes EN ISO 12625-16:2015

English Version

Tissue paper and tissue products - Part 16: Determination of optical properties - Diffuse reflectance method for opacity (paper backing) (ISO 12625-16:2024)

Papier tissue et produits tissue - Partie 16:
Détermination des propriétés optiques - Méthode par
réflectance diffuse de l'opacité sur fond papier (ISO
12625-16:2024)

Tissue-Papier und Tissue-Produkte - Teil 16:
Bestimmung der optischen Eigenschaften - Opazität
über Papierstapel - Diffuser Reflexionsfaktor (ISO
12625-16:2024)

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EN ISO 12625-16:2024 (E)

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European foreword

This document (EN ISO 12625-16:2024) has been prepared by Technical Committee ISO/TC 6 "Paper, board and pulps" in collaboration with Technical Committee CEN/TC 172 "Pulp, paper and board" 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of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.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 12625-16:2015.

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Endorsement notice

The text of ISO 12625-16:2024 has been approved by CEN as EN ISO 12625-16:2024 without any modification.



International Standard

ISO 12625-16

Tissue paper and tissue products — Part 16: Determination of optical properties — Diffuse reflectance method for opacity (paper backing)

Papier tissue et produits tissue —

*Partie 16: Détermination des propriétés optiques — Méthode par
réflectance diffuse de l'opacité sur fond papier*

**Second edition
2024-05**

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Published in Switzerland

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ISO 12625-16:2024(en)

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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This document was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 12625-16:2015), which has been technically revised.

The main changes are as follows:

- Information has been added to [Annex A](#) to explain calculations for instruments with bandpass correction; [Table A.2](#) provides weighting functions needed for calculations related to instruments with bandpass correction.

A list of all parts in the ISO 12625 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.

ISO 12625-16:2024(en)**Introduction**

Optical measurements are affected by the geometry of the instruments used and by the texture of the material.

The optical properties are related to the visual appearance of the material. Although optical properties are intrinsic properties of tissue paper, they are not functional properties.

The opacity value depends on the principle used for its evaluation, and a method should be chosen which most closely relates to the interpretation to be placed upon the results. The method described in this document is applicable when it is desired to measure that property of a tissue paper or tissue product which governs the extent to which one sheet visually obscures print on underlying sheets. It should not be confused with methods based on the reduction in a standard contrast by interposition of the paper opacity (white backing), formerly known as contrast ratio, nor with the assessment of the amount and condition of light penetrating a sheet (transparency or translucency).

The calculation of opacity requires luminance-factor data obtained by measurement under specified conditions. The luminance factor depends on the conditions of measurement, and particularly on the spectral and geometric characteristics of the instrument used for its determination.

Tissue paper and tissue products —

Part 16:

Determination of optical properties — Diffuse reflectance method for opacity (paper backing)

1 Scope

This document specifies the testing procedures for the instrumental determination of the opacity of tissue paper or tissue products by diffuse reflectance using a paper backing.

This document contains specific instructions for the preparation of test pieces of single-ply and multi-ply products, where special preparation/procedures might be necessary.

It can be used to determine the opacity of tissue paper and tissue products containing fluorescent whitening agents, provided the UV content of the radiation incident on the test piece has been adjusted to conform to that in the CIE illuminant C using a fluorescent reference standard provided by an authorized laboratory as described in ISO 2470-1.

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 186, *Paper and board — Sampling to determine average quality*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 2469, *Paper, board and pulps — Measurement of diffuse radiance factor (diffuse reflectance factor)*

ISO 2470-1, *Paper, board and pulps — Measurement of diffuse blue reflectance factor — Part 1: Indoor daylight conditions (ISO brightness)*

ISO 4094, *Paper, board and pulps — General requirements for the competence of laboratories authorized for the issue of optical reference transfer standards of level 3*

ISO/CIE 11664-1, *Colorimetry — Part 1: CIE standard colorimetric observers*

ISO/CIE 11664-2, *Colorimetry — Part 2: CIE standard illuminants*

ASTM E308-13, *Standard Practice for Computing the Colors of Objects by Using the CIE System*

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