

Tissue paper and tissue products - Part 7: Determination of optical properties - Measurement of brightness and colour with D65/10° (outdoor daylight) (ISO 12625-7:2014)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 12625-7:2014 sisaldab Euroopa standardi EN ISO 12625-7:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 12625-7:2014 consists of the English text of the European standard EN ISO 12625-7:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.05.2014.	Date of Availability of the European standard is 07.05.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 85.060

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English Version

Tissue paper and tissue products - Part 7: Determination of
optical properties - Measurement of brightness and colour with
D65/10° (outdoor daylight) (ISO 12625-7:2014)

Papier tissue et produits tissue - Partie 7: Détermination
des propriétés optiques - Mesurage du degré de blancheur
et de la couleur avec l'illuminant D65/10° (lumière du jour
extérieure) (ISO 12625-7:2014)

Tissue-Papier und Tissue-Produkte - Teil 7: Bestimmung
der optischen Eigenschaften - Brightness und Farbmessung
mit Lichtart D65/10° (Außentageslicht) (ISO 12625-7:2014)

This European Standard was approved by CEN on 17 April 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 12625-7:2014) has been prepared by Technical Committee CEN/TC 172 "Pulp, paper and board" the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 6 "Paper, board and pulps".

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of an identical text or by endorsement, at the latest by November 2014, and conflicting national standards shall be withdrawn at the latest by November 2014.

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This document supersedes EN ISO 12625-7:2007.

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Endorsement notice

The text of ISO 12625-7:2014 has been approved by CEN as EN ISO 12625-7:2014 without any modification.

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Introduction

Brightness and colour measurement may be performed under various illumination and observation conditions. This part of ISO 12625 deals with D65/10° conditions, which refer to an outdoor daylight.

C/2° conditions (indoor daylight) are considered in ISO 12625-15. Although both international standards deal with brightness and colour, results obtained are usually different and do not correlate.

Optical measurement are affected by the geometry of the instruments used and by the texture of the material. The design of the instrument to be used according to this part of ISO 12625, and the routine to be adopted for its calibration, are specified in ISO 2469 and ISO 11475.

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

Brightness shall not be confused with the optical property called CIE-whiteness that is based on reflectance data obtained over the full visible spectral range (VIS) in contrast to the measurement of brightness which is limited to the blue region of VIS.

Due to the importance for some countries three different test methods for the determination of optical properties were developed:

- Part 7: *Determination of optical properties — Measurement of brightness and colour with D65/10° (outdoor daylight);*
- Part 15: *Determination of optical properties — Measurement of brightness and colour with C/2° (indoor) daylight;*
- Part 16: *Determination of optical properties — Opacity (paper backing) — Diffuse reflectance method;*

Tissue paper and tissue products —

Part 7:

Determination of optical properties — Measurement of brightness and colour with D65/10° (outdoor daylight)

1 Scope

This part of ISO 12625 specifies testing procedures for the instrumental determination of brightness and colour of tissue paper and tissue products viewed under outdoor daylight conditions. It also gives specific instructions for the preparation of test pieces (single-ply, multi-ply products) and for the optical measurements of products, where special precautions may be necessary.

NOTE The properties called C/2° brightness and colour are measured with an instrument adjusted to a much lower UV content than that specified in this part of ISO 12625. The measurements of C/2° brightness and colour are described in ISO 12625-15.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 2469:2007, *Paper, board and pulps — Measurement of diffuse radiance factor*

ISO 5631-2:2008, *Paper and board — Determination of colour by diffuse reflectance — Part 2: Outdoor daylight conditions (D65/10 degrees)*

ISO 11475, *Paper and board — Determination of CIE whiteness, D65/10 degrees (outdoor daylight)*

3 Terms and definitions

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

3.1

reflectance factor

R

ratio of the radiation reflected by a body to that reflected by the perfect diffuser under the same conditions of illumination and detection

Note 1 to entry: The reflectance factor is expressed as a percentage.

Note 2 to entry: The reflectance factor is influenced by the backing if the body is translucent.