

STN	Papier, lepenka a buničiny Meranie difúzneho činiteľa žiarivosti (Faktor difúznej odrazivosti)	STN ISO 2469 50 0418
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Paper, board and pulps
Measurement of diffuse radiance factor (diffuse reflectance factor)

Papier, carton et pâtes
Mesurage du facteur de luminance énergétique diffuse (facteur de réflectance diffuse)

Táto slovenská technická norma obsahuje anglickú verziu medzinárodnej normy ISO 2469: 2014 a má postavenie oficiálnej verzie.

This Slovak standard includes the English version of the International standard ISO 2469: 2014 and has the status of the official version.

Nahradenie predchádzajúcich slovenských technických noriem

Táto slovenská technická norma nahrádza STN ISO 2469 z marca 2010 v celom rozsahu.

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Anotácia

Táto medzinárodná norma opisuje všeobecný postup merania difúzneho činiteľa žiarivosti všetkých druhov buničiny, papiera a lepenky. Konkrétnejšie podrobne špecifikuje v prílohe A charakteristiky zariadenia, ktoré sa má použiť na takéto merania, a v prílohe B postupy, ktoré sa majú použiť na kalibráciu tohto zariadenia.

Táto medzinárodná norma sa môže použiť na meranie difúzných činiteľov žiarivosti a súvisiacich vlastností materiálov obsahujúcich fluorescenčné zjasňujúce prostriedky za predpokladu, že obsah UV osvetlenia prístroja bol upravený tak, aby poskytoval rovnakú úroveň fluorescencie ako fluorescenčný referenčný etalón pre vybraný zdroj svetla podľa CIE v súlade so špecifickou medzinárodnou normou popisujúcou meranie príslušnej vlastnosti.

Táto medzinárodná norma opisuje v prílohe C prípravu fluorescenčných referenčných etalónov, hoci postupy používania týchto etalónov nie sú zahrnuté, pretože ich použitie je podrobne opísané v osobitných medzinárodných normách popisujúcich meranie vlastností materiálov obsahujúcich fluorescenčné zjasňujúce prostriedky.

Národný predhovor

Nasledujúce dokumenty, celé alebo ich časti, sú v tomto dokumente normatívnymi odkazmi a sú nevyhnutné pri jeho používaní. Pri datovaných odkazoch sa použije len citované vydanie. Pri nedatovaných odkazoch sa použije najnovšie vydanie citovaného dokumentu (vrátane všetkých zmien).

POZNÁMKA 1. – Ak bola medzinárodná publikácia zmenená spoločnými modifikáciami, čo je indikované označením (mod), použije sa príslušná EN/HD.

POZNÁMKA 2. – Aktuálne informácie o platných a zrušených STN a TNI možno získať na webovom sídle www.unms.sk.

ISO 4094 prijatá ako STN ISO 4094 Papier, lepenka a vlákny. Medzinárodná kalibrácia skúšobných prístrojov. Určenie a uznanie referenčných a oprávnených laboratórií (50 0010)

ASTM E308-06 dosiaľ neprijatá

Vypracovanie slovenskej technickej normy

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, Bratislava

Technická komisia: TK 90 Obaly, buničina, papier a lepenka

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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. 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. www.iso.org/patents

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 6, *Paper, board and pulps*.

This fifth edition cancels and replaces the fourth edition (ISO 2469:2007), which has been technically revised.

Introduction

The radiance factor depends on the conditions of measurement, particularly the spectral and geometric characteristics of the instrument used. The diffuse radiance factor as defined by this International Standard is determined using instruments having the characteristics given in [Annex A](#) and calibrated according to the procedure specified in [Annex B](#).

The diffuse radiance factor is the sum of the reflected radiance factor and the luminescent radiance factor, and the luminescent radiance factor of a luminescent (fluorescent) object is dependent on the spectral power distribution of the illumination. If adequately accurate measurements are to be carried out on fluorescent objects, the UV-content of the instrument illumination must therefore be adjusted to produce the same amount of fluorescence for a fluorescent reference standard as the selected CIE illuminant. The preparation of fluorescent reference standards to enable this adjustment to be made is described in [Annex C](#). The use of these fluorescent reference standards is described in detail in the International Standards describing the measurement of the properties of the materials containing fluorescent whitening agents.

The spectral diffuse radiance factor or the weighted diffuse radiance factor applicable to one or several specified wavelength bands is often used to characterize the properties of pulp, paper and board. Examples of diffuse radiance factors associated with specified wavelength bands are the ISO brightness (diffuse blue radiance factor) and the luminance factor.

The diffuse radiance factor or diffuse reflectance factor is also used as the basis for calculating optical properties, such as opacity, colour, whiteness and the Kubelka-Munk scattering and absorption coefficients. These various properties are described in detail in specific International Standards, and for all of these, ISO 2469 is the primary normative reference.

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

1 Scope

This International Standard describes the general procedure for measuring the diffuse radiance factor of all types of pulp, paper and board. More particularly, it specifies in detail in [Annex A](#) the characteristics of the equipment to be used for such measurements, and in [Annex B](#) the procedures to be used for calibrating that equipment.

This International Standard may be used to measure the diffuse radiance factors and related properties of materials containing fluorescent whitening agents, provided that the UV-content of the instrument illumination has been adjusted to give the same level of fluorescence as a fluorescent reference standard for a selected CIE illuminant, in accordance with the specific International Standard describing the measurement of the property in question.

This International Standard describes in [Annex C](#) the preparation of fluorescent reference standards, although the procedures for using these standards are not included, since their use is described in detail in the specific International Standards describing the measurement of the properties of materials containing fluorescent whitening agents.

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 4094, *Paper, board and pulps — International calibration of testing apparatus — Nomination and acceptance of standardizing and authorized laboratories*

ASTM E308-06, *Standard Practice for Computing the Colors of Objects by Using the CIE System*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN