

ICS 85.010
CCS Y 30



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 7974-2013

Replacing GB/T 7974-2002

**Paper, board and pulps -- Measurement of diffuse blue
reflectance factor -- D65 brightness (Diff/ Geometry, Outdoor
daylight conditions)**

(English Translation)

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Standardization Administration of China

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and Definitions

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 7974-2002 "Paper, paperboard and pulp brightness (whiteness) measured diffusion/vertical method", and this standard GB/T 7974-2002 compared to the main technical differences are as follows.

--- Modify the standard names, terms and definitions, the luminance (brightness) is amended as D65 brightness, fluorescence intensity (brightness) is amended as fluorescent D65 Brightness, making it consistent with the ISO standard terminology;

--- Modify the content of the ultraviolet instrument adjustment method and calculation method D65 fluorescence intensity scaling factor;

--- Increased determination spectrophotometer D65 Compact fluorescent brightness.

This standard uses redrafted Law Amendment uses ISO 2470-2:2008 "Determination of paper, board and pulp diffuse blue reflectance factor Part 2. Outdoor daylight conditions (D65 brightness). " this standard and ISO 2470-2:2008 and its main technical difference between the following reasons.

--- On normative references, this standard has been adjusted technical differences, in order to adapt our technical conditions, the adjusted situation Focus is reflected in the status of Chapter 2, "Normative references", the specific adjustments are as follows.

- Modify with international standards of GB/T 450 instead of ISO 186;
- equivalents adoption of international standards GB/T 740 instead of ISO 7213;
- non-equivalent to international standards of GB/T 7973 instead of ISO 2469;
- use equivalent to international standards of GB/T 8940.2 instead of ISO 3688;
- Modify with international standards of GB/T 22880 instead of ISO 11475;
- increase the GB/T 10739;

- Deletion of the terms and definitions radiance factor;
- Modify the D65 brightness indicates the accuracy of the results;
- Increasing the fluorescence intensity calculation method D65 scaling factor and determination of D65 fluorescence brightness to suit different types of instrument;
- Added "to calibrate the instrument" chapter.

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

The standard proposed by China National Light Industry Council.

The standard paper by the National Standardization Technical Committee (SAC/TC141) centralized.

This standard was drafted. China Pulp and Paper Research Institute, Guangdong Lee & Man Paper Co., Ltd., Shandong Huatai Paper Co., Ltd., the national Paper Quality Supervision and Inspection Center.

1 Scope

This standard specifies the method for determination of paper, paperboard and pulp D65 brightness.

This standard applies to white and near-white paper, paperboard and pulp, but also for paper, board and pulp containing fluorescent brighteners. Measurement the amount of the sample containing fluorescent whitening agents, fluorescent reference standard should be used to adjust the energy levels of ultraviolet radiation instrument to the CIE standard illumination D65 body under the same conditions can be measured.

Since the fluorescence excitation light source D65 This standard uses about ISO 2470-1. 2 times in the C source of 2009, so this standard is more appropriate for measuring fluorescence contribution to improve the brightness.

NOTE: ISO brightness measurement instrument UV content is much lower than the present standard, D65 brightness can not be confused with the equivalent of ISO brightness indoor observation condition Confusion. ISO 2470-1:2009 describes the ISO brightness measurement method.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 450 and take samples to an aspect of paper and paperboard samples, positive and negative determination (GB/T 450-2008, ISO 186.

2002, MOD)

GB/T 740 pulp samples taken (GB/T 740-2003, ISO 7213:1991, IDT) GB/T 7973 paper, paperboard and pulp measured diffuse reflectance factor (diffusion/vertical method) (GB/T 7973-2003, ISO 2469.

1994, NEQ)

GB/T 8940.2 pulp brightness (whiteness) Sample Preparation (GB/T 8940.2-2002, ISO 3688:1999, EQV) GB/T 10739 paper, paperboard and pulp sample processing and testing standard atmospheric conditions (GB/T 10739-2002, ISO 187.

1990, EQV)

Determination of GB/T 22880-2008 Paper and paperboard CIE whiteness, D65/10 ° (outdoor daylight) (GB/T 22880-2008, ISO 11475:2004, MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

Diffuse reflection factor diffuseradiancefactor by the radiation reflected by an object and the excitation light source and under the same observation conditions totally reflected reflection ratio of the diffuser. The ratio is usually in the hundreds He expressed as a fraction.

Note: If the object semi-transparent, diffuse reflection factor by backing affected.

Internal reflection factor intrinsicradiancefactor R_{∞}