

Paper, board and pulp — Measurement of diffuse blue reflectance factor (ISO brightness)

ICS 85.040; 85.060

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National foreword

This British Standard reproduces verbatim ISO 2470:1999 and implements it as the UK national standard. It supersedes BS 4432-2:1995 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PAI/11, Test methods for paper, board and pulps, which has the responsibility to:

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii and iii, a blank page, pages 1 to 9 and a back cover.

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This British Standard, having been prepared under the direction of the Sector Committee for Materials and Chemicals, was published under the authority of the Standards Committee and comes into effect on 15 February 2000

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ISBN 0 580 34219 0

Amendments issued since publication

Amd. No.	Date	Comments

**Paper, board and pulps — Measurement
of diffuse blue reflectance factor
(ISO brightness)**

*Papier, carton et pâtes — Mesurage du facteur de réflectance diffuse dans
le bleu (degré de blancheur ISO)*



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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2470 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Working Group WG 3, *Optical properties*.

This third edition cancels and replaces the second edition (ISO 2470:1977). This edition differs from the 1977 edition in that it describes the use of abridged spectrophotometers and also prescribes a routine for adjusting the relative UV-content of the illumination in this type of instrument to a defined level when materials containing fluorescent whitening agents are to be measured.

Annexes A and B form a normative part of this International Standard.

Introduction

The reflectance factor depends on the conditions of measurement, particularly the spectral and geometric characteristics of the instrument used. This International Standard should therefore be read in conjunction with ISO 2469 which defines the geometric characteristics of the instrument and the calibration procedure. This edition of ISO 2470 differs from the 1977 edition in that it describes the use of abridged spectrophotometers and also prescribes a routine for adjusting the relative UV-content of the illumination in this type of instrument to a defined level when materials containing fluorescent whitening agents are to be measured.

The definition of ISO brightness is historically linked to the Zeiss Elrepho instrument having as a light source an incandescent lamp which excites fluorescence to only a limited extent. It is specified here that, in instruments of the abridged spectrophotometer type, the UV-content of the illumination be adjusted using a suitable filter to conform to the CIE illuminant C as defined by a fluorescent reference standard having an assigned value of ISO brightness as described in annex B. Only if this is done may the property measured on a fluorescent material be called ISO brightness.