



SLOVENSKI STANDARD
SIST ISO 5631:2004
01-marec-2004

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Paper and board -- Determination of colour (C/2 degrees) -- Diffuse reflectance method

Papier et carton -- Détermination de la couleur (C/2 degrés) -- Méthode par réflectance diffuse

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ICS:

85.060 Papier, karton in lepenka Paper and board

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en

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INTERNATIONAL STANDARD

ISO
5631

First edition
2000-03-01

Paper and board — Determination of colour (C/2°) — Diffuse reflectance method

*Papier et carton — Détermination de la couleur (C/2°) — Méthode par
réflectance diffuse*

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ISO 5631:2000(E)**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.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 5631 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*.

Annex A forms a normative part of this International Standard.

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Introduction

The colour of an object can be uniquely characterized by means of a triplet of colour coordinates such as the 1931 CIE tristimulus values, the CIELAB 1976 L^* , a^* , b^* coordinates or the dominant wavelength, excitation purity and luminous reflectance.

The values of such coordinates depend upon 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.

This method describes the measurement and description of colour in terms of the CIE illuminant C and the CIE 1931 (2°) standard observer. The measurement and calculations can be carried out in an analogous manner with respect to the CIE standard illuminant D65 and the CIE 1964 (10°) standard observer or with other illuminant/observer combinations, but this is not in accordance with this International Standard.

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Paper and board — Determination of colour (C/2°) — Diffuse reflectance method

1 Scope

This International Standard specifies a method for measuring the colour of paper and board by the diffuse reflectance method with the elimination of specular gloss.

This International Standard is not applicable to coloured papers or boards which incorporate fluorescent dyes or pigments. It may be used to determine the colour of papers or boards which contain fluorescent whitening agents provided the UV-content of the illumination 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.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 186:1994, *Paper and board — Sampling to determine average quality*.

ISO 2469, *Paper, board and pulps — Measurement of diffuse reflectance factor*.

CIE Publication 15.2:1986, *Colorimetry*.

ASTM E 308-95, *Standard Practice for Computing the Colors of Objects by Using the CIE System*.

3 Terms and definitions

For the purposes of this International Standard, 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 reflecting diffuser under the same conditions of illumination and detection

NOTE 1 The reflectance factor is expressed as a percentage.

NOTE 2 The reflectance factor is influenced by the backing if the body is translucent.