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Analytical colorimetry —

Part 3: Special indices

Analyse colorimétrique —

Partie 3: Indices spéciaux

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Foreword

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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 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 256, *Pigments, dyestuffs and extenders*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 298, *Pigments and extenders,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 18314-3:2015), which has been technically revised.

The main changes are as follows:

— former subclause 5.4, Relative black value, M_{yr} and former subclause 6.4, Relative grey value, G_{yr} have been deleted;

— former Clause 2, Symbols and abbreviated terms, has been updated and renumbered as Clause 4;

— Clause 2, Normative references, has been added;

— Clause 3, Terms and definitions, has been added;

— in Clause 5, values for *x* and *y* have been added;

— the text has been editorially revised and the normative references have been updated.

A list of all parts in the ISO 18314 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Analytical colorimetry —

Part 3:
Special indices

1 Scope

This document specifies different methods of calculating special indices, which are generally used to describe lightness respectively jetness of samples including chroma or hue within one colour-coordinate.

This document is applicable to tristimulus values and chromaticity coordinates calculated using colour-matching functions of the standard colorimetric system of the CIE 1931 (2°) or CIE 1964 (10°). It is used for the specification of colour stimuli perceived as belonging to a reflecting or transmitting object where a one-dimensional value is required.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 18451-1, *Pigments, dyestuffs and extenders — Terminology — Part 1: General terms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 18451-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols and abbreviated terms

a, b	absolute parameters
CIE	International Commission on Illumination
FI	flop-index
G_C	hue dependent greyness value
G_Y	hue independent greyness value
$L^*(\varepsilon)$	CIELAB 1976 lightness value at the aspecular angle ε
M_C	hue dependent blackness value
M_Y	hue independent blackness value

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