Second edition
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Graphic technology — Print quality requirements for printed matter —

Part 1: Measurement methods and reporting schema

Technologie graphique — Exigences de qualité d'impression pour les imprimés —

Partie 1: Méthodes de mesure et schémas de rapport

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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).

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 (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 130, *Graphic technology*.

This second edition of ISO/TS 15311-1 cancels and replaces the first edition (ISO/TS 15311-1:2016), which has been technically revised.

The main changes compared to the previous edition are as follows:

a) All references are now undated, unless reference is made to a specific element of the cited document.

b) 4.3.2.3 Absolute colour reproduction (process colours)

   1) Title changed to: Colour accuracy (absolute colour reproduction, process colours).

c) 4.3.2.4 Media relative colour reproduction (process colours)

   1) Title changed to: Colour accuracy (media relative colour reproduction, process colours).

d) Subclauses added:

   1) 4.3.2.5 Colour accuracy (media relative colour reproduction with BlackPoint compensation)

   2) 4.3.2.7 Colour accuracy (spot colours)

   3) 4.3.3.7 Print-through resistance

   4) 4.3.4.8 Registration

   5) 4.3.5.5 Water resistance

   6) 4.3.5.6 Scratch resistance

   7) 4.3.5.7 Abrasion resistance (transportation of sheets)

8) 4.3.6.1 Background extraneous marks and voids (monochrome)

e) Annex B added

1) Estimation of BlackPoint from control strip

f) Annex C added

1) Calculation of 95th percentile

g) 4.3.2.4 Colour accuracy (media relative colour reproduction, process colours) modified

1) Reference colour values are now adjusted instead of adjusting measurement values as in the published version of this standard. This was done to be consistent with the method used to assess media relative colour reproduction with BlackPoint compensation.

A list of all parts in the ISO/TS 15311 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.

Introduction

When producing a colour reproduction, it is important that the persons responsible for data creation, colour separation, proofing and printing operations have previously agreed a minimum set of parameters that define the visual characteristics and other technical properties of the planned print product. This document identifies a number of metrics that can be applied to printed sheets and that can be used as the basis for such communication. The range of metrics is large and it is not intended that all of these metrics are to be applied to any given printed product and for any given application, the range of metrics is to be carefully selected, for example based on subsequent parts of ISO/TS 15311.

The metrics described by this document can be applied to any type of print. They are likely most often to be applied to digitally printed prints.

When selecting the set of metrics, only those metrics that have a clear specification and that correlate well with human perception are included in this document. Since this is an area of significant research activity, new metrics are expected to emerge and existing metrics to be revised in the next few years. For this reason, we anticipate the need to revise this document within a very short time scale as new metrics are tested and found to be reliable.

Additional tests to those specified in this document, for example visual assessment of smoothness, images and other elements may be required when assessing print quality.

As with any parameter that is used as part of a product specification, it is important for readers to understand clearly what the metric means. For this reason, a reporting schema is to be followed when reporting measurements in conformance with this document.

