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BSI Standards Publication

Graphic technology — Requirements for printed matter for commercial and industrial production

Part 1: Measurement methods and reporting schema

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National foreword

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Part 1: Measurement methods and reporting schema

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **2**
4 Requirements **3**
4.1 General 3
4.2 Single or multiple sheet assessment 4
4.2.1 Total number of sheets 4
4.2.2 Number of sheets measured 4
4.2.3 Reporting 4
4.3 Print quality measures 5
4.3.1 Overview 5
4.3.2 Colour, tone reproduction and gloss 5
4.3.3 Uniformity 8
4.3.4 Detail rendition capabilities 10
4.3.5 Permanence 11
4.4 Printing conditions 13
Annex A (informative) **Sampling of sheets** **14**
Bibliography **16**

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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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 130, *Graphic technology*.

ISO/TS 15311 consists of the following parts, under the general title *Graphic technology — Requirements for printed matter for commercial and industrial production*:

— *Part 1: Measurement methods and reporting schema*

The following parts are under preparation:

— *Part 2: Commercial production printing*

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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 part of ISO/TS 15311 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 part of ISO/TS 15311 can be applied to any type of print. They are likely to most often 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 part of ISO/TS 15311. 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 part of ISO/TS 15311 within a very short time scale as new metrics are tested and found to be reliable.

Additional tests to those specified in this this part of ISO/TS 15311, 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 part of ISO/TS 15311.

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Graphic technology — Requirements for printed matter for commercial and industrial production —

Part 1: Measurement methods and reporting schema

1 Scope

This part of ISO/TS 15311 defines print metrics, measurement methods and reporting requirements for printed sheets that are suitable for all classes of printed products.

Guidance as to which of these metrics to apply to any given category of product along with acceptable conformance criteria is provided in subsequent parts of ISO/TS 15311.

Although this part of ISO/TS 15311 is expected to be used primarily to measure prints from digital printing systems, the metrics are general and can be applied to other kinds of print.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2813, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20 degrees, 60 degrees and 85 degrees*

ISO 8254-2, *Paper and board — Measurement of specular gloss — Part 2: 75 degree gloss with a parallel beam, DIN method*

ISO 12642-2, *Graphic technology — Input data for characterization of 4-colour process printing — Part 2: Expanded data set*

ISO 12647-8:2012, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 8: Validation print processes working directly from digital data*

ISO 13655, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

ISO 18924, *Imaging materials — Test method for Arrhenius-type predictions*

ISO 18930, *Imaging materials — Pictorial colour reflection prints — Methods for evaluating image stability under outdoor conditions*

ISO 18937:2014, *Imaging materials — Photographic reflection prints — Methods for measuring indoor light stability*

ISO/IEC TS 24790:2012, *Information technology — Office equipment — Measurement of image quality attributes for hardcopy output — Monochrome text and graphic images*

ISO/IEC TS 29112, *Information technology — Office equipment — Test charts and methods for measuring monochrome printer resolution*

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