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Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints —

Part 5: Screen printing

Technologie graphique — Contrôle du processus de confection de sélections couleurs tramées, d'épreuves et de tirages —

Partie 5: Sérigraphie

Reference number
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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.

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 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*.

This second edition cancels and replaces the first edition (ISO 12647-5:2001), which has been technically revised.

ISO 12647 consists of the following parts, under the general title *Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints*:

— *Part 1: Parameters and measurement methods*

— *Part 2: Offset lithographic processes*

— *Part 3: Coldset offset lithography on newsprint*

— *Part 4: Publication gravure printing*

— *Part 5: Screen printing*

— *Part 6: Flexographic printing*

— *Part 7: Proofing processes working directly from digital data*

— *Part 8: Validation print processes working directly from digital data*

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Introduction

Historically, this International Standard established the process control parameters and their aim values and tolerances for the most important professional printing processes of the graphic arts industry. The initial concept was that the groundwork for the series was laid down in ISO 12647-1. This part of the ISO 12647- series differs from that concept because screen printing has changed significantly since this International Standard was initially conceived.

This edition of this part of ISO 12647 differs from the earlier edition by not defining specific printing condition aims but instead requiring that a specific reference printing condition (characterization data set) be specified. This part of ISO 12647 requires that the colour of the printed product match a characterization data set or a printing condition agreed upon by the provider and the receiver and specifies minimum requirements and tolerances to be communicated and produced. Where specific physical parameters can impact the final result (screen angles, resolution, screen mesh, etc.), specifications and tolerances are provided for these parameters.

Because material produced by screen printing varies widely in both size and nominal viewing distance, a viewing distance metric is introduced as part of all screening and resolution requirements.

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Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints —

Part 5: Screen printing

1 Scope

This part of ISO 12647 specifies the requirements for the screen printing of four-colour process-colour material used for display, signage, and graphics using flat bed or cylinder printing equipment. Both the size and resolution of the finished product are unrestricted. The process stages included are

— data preparation and delivery,

— proof production,

— printing forme preparation, and

— production printing.

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 12639, *Graphic technology — Prepress digital data exchange — Tag image file format for image technology (TIFF/IT)*

ISO 12647-1, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 1: Parameters and measurement methods*

ISO 12647-7, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 7: Proofing processes working directly from digital data*

ISO 12647-8, *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 13655:2009, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

ISO 15930-1, *Graphic technology — Prepress digital data exchange — Use of PDF — Part 1: Complete exchange using CMYK data (PDF/X-1 and PDF/X-1a)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12647-1 apply.

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