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

## Part 4: Publication gravure printing

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

*Partie 4: Processus de gravure*



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## Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Requirements</b> .....	<b>2</b>
<b>4.1 General</b> .....	<b>2</b>
<b>4.2 Data file and printing forme</b> .....	<b>3</b>
<b>4.3 Proof or production print</b> .....	<b>4</b>
<b>5 Reporting of printing conditions</b> .....	<b>6</b>
<b>Annex A (normative) Gamut types</b> .....	<b>8</b>
<b>Bibliography</b> .....	<b>13</b>

## 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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12647-4 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

ISO 12647 consists of the following parts, under the general title *Graphic technology — Process control for the production of half-tone colour separations, proofs 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: Off-press proofing process working directly from digital data*

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## Introduction

The purposes of ISO 12647-1 are

- to list and explain the minimum set of primary process parameters required to uniquely define the visual characteristics and related technical properties of a half-tone proof or production print produced from digital data directly or via a set of half-tone separation films;
- to give the definitions for the general terms necessary for process control;
- to describe the measurement methods and the requirements for reporting the results.

This part of ISO 12647 lists values or sets of values of the primary parameters specified in ISO 12647-1 and related technical properties of a gravure publication print. Where deemed useful, secondary parameters are also specified.

The purpose of a proof print is to simulate the visual characteristics of the finished print product as closely as possible. In order to visually match a particular print, off-press proofing processes may require values for solid tone coloration and tone value increase which are different from those of the printing process they are meant to simulate. This is caused by differences in phenomena such as gloss, light scatter (within the print substrate or the colorant), metamerism and transparency. Such differences are likely for those off-press proofing processes in which the print substrate, the colorants and the technology for applying them are significantly different from gravure press printing. In such cases the user or the supplier should ensure that appropriate corrections are specified. Another problem area is the matching of a digital off-press proof to a double-sided print on a less-than-opaque, lightweight printing paper as used in publication gravure printing. If it is deemed necessary, for image quality reasons, to proof with colour management profiles based on measurements with substrate backing rather than black backing, there will be an unavoidable difference between proof and production prints. This fact needs to be communicated to all parties concerned.