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# 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

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

Partie 8: Processus d'impression de maquette couleur produite à partir de données numériques



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## Contents

Forewo	ord	.iv
Introdu	ction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Requirements	2
5	Test methods	8
Annex	A (informative) Determination of print durability after stabilization	11
Annex	B (normative) Surface gamut patches	14
Bibliog	raphy	16

## 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 12647-8 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, 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

### Introduction

This part of ISO 12647 specifies the properties, and associated test methods, required for digital prints and printing processes to meet the criteria established for "validation prints".

In most printing workflows, there is a requirement for a visual representation of the expected appearance of the document being printed that can be used as part of the agreement between the customer and printer. Where this visual representation is produced such that its characteristics (colour fidelity, tone reproduction, registration, size, etc.) simulate those of the expected printing within tight tolerances, it is usually referred to as a "contract proof". As the name implies, contract proofs are used as part of the contractual relationship between customer and printer and are used as a visual aim for the press operator during printing as well as the absolute reference against which the finished production is compared. Not unexpectedly, systems that can produce contract proofs are usually expensive and require careful operation and maintenance. ISO 12647-7 specifies the requirements for contract proofs and systems used to produce contract proofs directly from digital data.

Recently, other visualizations of the final printed product have found a place in the printing/proofing workflow because designers and print buyers prefer not go to the expense of using an ISO 12647-7 compliant contract proof any earlier in the process than necessary. In many situations, participants in the work flow require a hardcopy visual reference of lesser quality than a contract proof. In the past, those prints varied widely in quality and were often referred to as design proofs, concept proofs, layout prints, etc. That quality level is here being referred to as a "validation print".

Because data are exchanged electronically and visualizations of those data are produced at multiple sites, there is a requirement for defined requirements for validation prints to allow a degree of consistency throughout the workflow. One of the goals of having less stringent requirements, particularly on colour fidelity, is to allow the production of validation prints on less elaborate and less costly devices than are required for contract proofs. The requirements for validation prints and the systems used to produce validation prints are documented in this part of ISO 12647.

Validation prints are not intended to replace "contract proofs" for predicting colour on production printing devices. It is expected that the modifications of the requirements for validation prints, along with the requirements for contract proofs, will continue in the future as industry requirements and imaging technologies develop.