

TRÜKITEHNOLOOGIA

**Protsessi kontrollimine pooltooni värvilahutuste,
proovitrükkide ja tootmistrükkide valmistamisel**

**Osa 2: Ofsetlitograafia protsess
(ISO 12647-2:1996)**

Graphic technology

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

Part 2: Offset lithographic processes
(ISO 12647-2:1996)

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-ISO 12647-2:2007 "Trükitehnoloogia. Protsessi kontrollimine pooltooni värvilahutuste, proovitrükkide ja tootmistrükkide valmistamisel. Osa 2: Ofsetlitograafia protsess" sisaldab rahvusvahelise standardi ISO 12647-2:1996 "Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 2: Offset lithographic processes" identset ingliskeelset teksti.</p>	<p>This Estonian Standard EVS-ISO 12647-2:2007 consists of the identical English text of the International Standard ISO 12647-2:1996 "Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 2: Offset lithographic processes".</p>
<p>Standardi avaldamise korraldas Eesti Standardikeskus.</p>	<p>Estonian standard is published by the Estonian Centre for Standardisation.</p>
<p>Standard EVS-ISO 12647-2:2007 on kinnitatud Eesti Standardikeskuse 04.07.2007. käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teataja 2007. aasta augustikuu numbris.</p>	<p>This standard is ratified with the order of Estonian Centre for Standardisation dated 04.07.2007 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p>
<p>Standard on kättesaadav Eesti Standardikeskusest.</p>	<p>The standard is available from Estonian Centre for Standardisation.</p>

Käsitlusala

ISO 12647 käesolev osa määratleb hulga protsessi parameetreid koos väärtustega, mida tuleb kasutada värvilahutuste valmistamisel neljavärvi-ofsetrüki jaoks või neljavärvitrükkide valmistamisel ühe järgneva meetodi abil: heat-set rullitrükk, poognatrükk või pidevate vormidega protsessitrükk või nende protsesside proovitrükkid; ofset-proovitrükkid pooltooni-sügavtrükile. Parameetrite valik põhineb tervikprotsessil, mis katab järgmised etapid: "värvilahutus", "trükivormi valmistamine", "proovitrükk", "tootmistrükk" ja "pinna järeltöötlus".

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Foreword

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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.

International Standard ISO 12647-2 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 manufacture of half-tone colour separations, proof and production prints*:

- *Part 1: Parameters and measurement methods*
- *Part 2: Offset lithographic processes*

Annexes A to D of this International Standard are for information only.

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Introduction

When producing a half-tone colour reproduction it is important that the colour separator, proofer and printer have previously specified a minimum set of parameters that uniquely define the visual characteristics and other technical properties of the planned print product and the proof. Such an agreement enables the correct production of suitable separations (without recourse to "trial-and-error") and subsequent production of off-press or on-press proof prints from these separations. 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 colourant), metamerism and transparency. Such differences are likely for those off-press proofing processes in which the print substrate, the colourants and the technology for applying them are significantly different from offset press printing. In such cases the user or the supplier should ensure that appropriate corrections are specified.

It is necessary to distinguish between primary and secondary parameters. Whereas primary parameters (as listed in this part of ISO 12647) are defined as having a direct bearing on the visual characteristics of the image, secondary parameters only influence the image indirectly by changing the values of primary parameters. Secondary parameters include

- colour separation film thickness;
- image orientation (wrong-reading or right-reading);
- film polarity (negative or positive);
- roughness of the emulsion surfaces;
- presence of colour marking or register marks.

It is the purpose of ISO 12647-1 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 a set of half-tone separation films.

This part of ISO 12647 lists suggested values or sets of values of the primary parameters specified in ISO 12647-1 and related technical properties of a half-tone offset print produced from a set of half-tone colour separation films. Where deemed useful, secondary parameters are also recommended for specification.

Other parts of ISO 12647 will relate to other printing processes such as

- newspaper printing;
- gravure printing;
- screen printing.

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

Part 2:

Offset processes

1 Scope

This part of ISO 12647 specifies a number of process parameters and their values to be applied when preparing colour separations for four-colour offset printing or when producing four-colour prints by one of the following methods: heat-set web, sheet-fed or continuous forms process printing, or proofing for these processes; offset proofing for half-tone gravure. The parameters and values are chosen in view of the complete process covering the process stages "colour separation", "making of the printing forme", "proof production", "production printing" and "surface finishing".

This part of ISO 12647 is

- directly applicable to proofing and printing processes that use colour separation films as input;
- directly applicable to proofing and printing from printing surfaces produced by filmless methods and to gravure printing as long as direct analogies to film production systems are maintained;
- applicable to proofing with more than four process colours as long as direct analogies to four-colour printing are maintained;
- applicable by analogy to line screens and non-periodic screens.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 12647. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 12647 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5-3:1995, *Photography — Density measurements — Part 3: Spectral conditions*.

ISO 8254-1:—¹⁾, *Paper and board — Measurement of specular gloss — Part 1: 75° gloss*.

ISO 12647-1:1996, *Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints — Part 1: Parameters and measurement methods*.

1) To be published.