



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17934.3-2021

**Graphic technology - Process control for the production of
half-tone colour separations, proofs and production prints -
Part 3: Coldset offset lithography on newsprint**

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Standardization Administration**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents"

drafted:

This document is part 3 of GB/T 17934 "Printing Technology Mesh Color Separation Plates, Proofs and Process Control of Production Printed Matters"

point: GB/T 17934 has published the following parts:

- Part 1: Parameters and measurement methods;
- Part 2: Lithographic offset printing;
- Part 3: Newsprint coldset offset lithography;
- Part 5: Screen printing;
- Part 6: Flexographic printing;
- Part 7: Proofing process using digital data directly;
- Part 8: Verification print production process using digital data directly;

This document replaces GB/T 17934:3-2003 "Process control of printing technology halftone color separation films, proofs and printed products"

Part 3: Cold-set ink offset printing for newsprint", compared with GB/T 17934:3-2003, except for structural adjustments and editorial changes

In addition, the main technical changes are as follows:

- a) Deleted the relevant content of color separation film (see:2003 edition 4:1);
- b) Added technical requirements for data files and printing plates (see 4:2);
- c) Modified the mesh frequency, it is recommended to be 40cm-1~54cm-1 (see 4:2:3);
- d) Added aperiodic screening requirements (see 4:2:4);

- e) Modified the requirements for the summation of tone values (see 4:2:7);
- f) Added the grey balance calculation method based on newsprint (see 4:2:8);
- g) Added the definition of standard newsprint printing conditions (see 4:3:1, Table 1);
- h) Modified the characteristic requirements of printing substrates (see 4:3:2);
- i) Modified ink curing color and tolerance, adding reference ink curing color and DE2000 tolerance under white backing (see 4:3:2:3);
- j) Modified the tone value increase curve and added the mathematical description (see Figure 3);
- k) Modify the color registration error requirements (see 4:3:5);
- l) Deleted the appearance requirements of 4:3 printed matter (see 4:3 of the:2003 edition);
- m) Added additional printing conditions and flexographic printing conditions for improved newsprint (see Appendix D and Appendix E);
- n) Modified the tone reproduction range requirements (see D:2):

This document is identical to ISO 12647-3:2013 "Printing Technology Screen Tone Color Separation Plates, Proofs and Process Control of Production Printed Matters"

Part 3: Coldset Lithographic Offset Printing on Newsprint:

The following editorial changes have been made to this document:

--- Add ISO 12647-3:2005 and ISO 3664 to References:

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

When producing halftone prints, a minimum set of parameters in the color separation and printing process is defined in advance to uniquely define the product to be printed:

The visual and other technical characteristics of the product are very important, such regulations allow correct production under qualified color separations (without repeated testing)

become possible:

This document is part 3 of GB/T 17934 "Printing Technology Mesh Color Separation Plates, Proofs and Process Control of Production Printed Matters"

point: GB/T 17934 is intended to consist of eight parts:

- Part 1: Parameters and measurement methods;
- Part 2: Lithographic offset printing;
- Part 3: Newsprint coldset offset lithography;
- Part 4: Publishing gravure;
- Part 5: Screen printing;
- Part 6: Flexographic printing;
- Part 7: Proofing process using digital data directly;
- Part 8: Verification print production process using digital data directly;

This document lists and explains the visual and related techniques for producing newsprint coldset lithographic offset halftone prints from halftone separation data:

Minimum process parameters required for technical characteristics:

Printing Technology Mesh Toning Separations, Proofs and Production

Process Control of Printed Matter

Part 3: Newsprint coldset offset lithography

1 Scope

This document specifies some process parameters and their values in the separation and print production of four-color or single-color newsprint:

The selection is based on process considerations, covering process stages such as "separation", "plate making", "first signature or proof", and "production printing":

This document aims to enhance communication between printers, publishers and advertisers, and to make the commissioning party aware of the intended printing effect of advertisements in order to

Prepare accordingly: This document defines the basis for objective assessment of tolerances and quality in order to improve the competitiveness of newspapers and other media:

This document applies to:

- Newsprint coldset lithographic offset printing production using color separation data;
- Digital direct imaging similar to the printing press to produce printing effects;
- Aperiodic screens and line screens with similar parameters can be provided:

Although this document does not specify process controls for flexographic, digital and

letterpress printing, the use of these production techniques and expectations

The production targets defined in this document can also be used when printing products close to coldset offset lithography:

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document:

GB/T 17934:1-2021 Printing Technology Mesh Tone Color Separation Plates, Proofs and Process Control of Production Printed Matters Part 1

Part: Parameters and Measurement Methods (ISO 12647-1:2013, IDT)

GB/T 17934:7-2021 Printing Technology Mesh Tone Color Separation Plates, Proofs and Process Control of Production Printed Matters Part 7

Sub: Proofing process using digital data directly (ISO 12647-7:2016, IDT)

ISO 5-3 Density measurement in photography and printing techniques - Part 3: Spectral conditions (Photography and graphic technology-Density measurements-Part 3:Spectral conditions)

Note: GB/T 11501-2008 Photographic Densitometric Measurement Part 3: Spectral Conditions (ISO 5-3:1995, IDT)

ISO 2846-2 Printing technology - Color and transparency of four-color printing inks - Part 2: Coldset offset lithography (Graphic

technology-Colour and transparency of printing ink sets for four-colour printing-Part 2: Coldset offset lithographic printing)

ISO /T S10128 Printing system adjustment method for printing technology matching color characterization data set (Graphic technology-

Method of adjustment of the colour reproduction of a printing system to match a set of characterization data)

Note: CY/T 128-2015 Printing System Adjustment Method for Printing Technology Matching Color Characterization Dataset (ISO /T S1028:2009, IDT)

ISO 13655:2009 Printing technology Spectral measurement and colorimetric calculation of