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

GB/T 30329.1-2013

**Graphic technology -- Colour and transparency of printing ink
sets for four-colour printing -- Part 1: Sheet-fed and heat-set
web offset lithographic printing**

印刷技术 四色印刷油墨颜色和透明度 第1部分：单张纸和热固型卷筒纸胶印
(English Translation)

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Foreword

GB/T 30329 "four-color printing technology printing ink color and transparency," including five parts.

- Part 1. sheetfed and heatset web offset printing;
- Part 2. newsprint coldset web offset printing;
- Part 3. Publication gravure printing;
- Part 4. screen printing;
- Part 5. flexographic printing.

This section GB/T 30329. Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses redrafted Law Amendment uses ISO 2846-1:2006 "four-color printing technology printing ink color and transparency of the first Part I. sheetfed and heatset web offset. " this part of ISO 2846-1:2006 as compared to the existence of technical differences, Appendix D gives a list of the technical differences and their causes.

This section also made the following editorial changes.

- Remove the ISO 2846-1:2006 tristimulus "Appendix D (Informative Appendix) 8 °/diffuse geometry type of instrument and light source D65 value";
- Added "Appendix D (informative) This standard and ISO 2846-1:2006 technical differences and their causes", lists the headquarters and ISO technical points and the reasons for the differences 2846-1.2006.

This section proposed by the Press and Publication Administration.

This part of the National Standardization Technical Committee printing (SAC/TC170) centralized.

This section is drafted. Tianjin Toyo Ink Co., Ltd., Hangzhou Toka Ink Chemical Co., Ltd., Gold East Paper (Jiangsu) Co., Ltd. Ya Chang Enterprise (Group) Co., Ltd., Beijing Institute of Printing, Shenzhen Haichuan Color Technology Co., Ltd. Langfang City, north Jaco Printing Company Limited Secretary, Zhejiang Xinhua Digital Printing Limited.

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Introduction

In line with GB/T 30329 Ben different four-color ink set portion (including proofing and print production) on the same substrate in an appropriate when printing ink film thickness, color similar to that produced. Such separation can be offset from the known reference color be simplified repeating the same printing Multicolor printing setting image.

It should be noted that only when printed on the reference substrate in order to achieve color characteristics specified in this part. However, if two inks in group Printing similar effect on the quasi-substrate, its effect on other printing substrates must also be similar. This is the development of industry standards or standard Prospective basis, such as the provisions of these inks on substrates other color GB/T 17934.2 and the like.

ISO 2846-1:2006 specified color is based on the measurement results of a large number of European, Japanese and US commercial production of ink composition and customized. GB/T 30329 This section basically retained the ISO 2846-1:2006 structure and content, but based on China's national conditions, in with ISO 2846-1:2006 parameter definitions and test methods on a consistent basis, to the domestic market at home and abroad commonly used to collect 23 sets Sheetfed offset inks and seven sets of heatset web offset inks for color measurement data, obtained the domestic market ink color and ISO 2846-1:2006 international standard color difference between the parameters as follows.

Domestic market ink yellow. a value (approximately -2.0) greenish phase Magenta ink domestic market. b values \u200b\u200b(about -1.8) with bluish Green Ink domestic market. a value (approximately -2.4) greenish phase Domestic market ink black. b value (about 3.0) yellow phase Domestic market inks yellow, green L value (about 2.0) clear and high, the domestic market magenta ink, black L values \u200b\u200bsimilar to international standards.

GB/T 30329 in this section based on the testing process and domestic technical data presented is consistent with China's color standard.

Printing four-color printing ink color and transparency Part 1. sheetfed and heatset web offset printing

1 Scope

GB/T 30329 provisions of this part of the four-color offset printing ink colors used in offset printing and proofing process should meet the color and transparency Degree feature also provides the printing conditions (using laboratory printability tester), defined substrates and ensure consistency of testing methods.

This section applies to sheetfed, heatset web offset printing and photo-curable.

This section does not apply to fluorescent inks, pigments (or spectral characteristics indicative except information) is not specified, so that the optimal combination of different pigments You can also reach the chromaticity requirements specified in this part.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 451.2 Paper and paperboard quantitative determination (GB/T 451.2-2002, eqv ISO 536:1995) GB/T 742 paper-making raw material, pulp, paper and board Determination of ash (GB/T 742-2008, ISO 2144:1997, MOD) GB/T 1540 Determination of absorbent paper and cardboard Cobb method (GB/T 1540-2002, ISO 535:1991, NEQ) GB/T 1545 paper, board and pulp - Determination of water extract of acidity or alkalinity (GB/T 1545-2008, ISO 6588. 1981, MOD) GB/T 8941 Paper and board - Determination of specular gloss (20 ° 45 ° 75 °) (GB/T 8941-2007, ISO 8254-1:1999;

ISO 8254-3:2004, MOD) GB/T 19437 printed image printing technology - Spectral measurement and colorimetric computation (GB/T 19437-2004, ISO 13655.

1996, IDT)

ISO 2834-1 test proofs printing technology laboratory preparation - Part 1. Paste inks (Graphicstechnology-Laboratorypreparationoftestprints-Part 1. Pasteinks) ISO 8791-4 Paper and board roughness/smoothness assay (air leak methods) - Part 4. surface printing method [Paperand board-Determinationofroughness/smoothness (airleakmethods) -Part 4. Printsurfmethod] ANSICGATS.5.2003 Graphic technology printed image spectral measurement and colorimetric computation (Graphicstechnology -Spectralmeasurementandcolorimetriccomputationforgraphicartsimages)

3 Terms and Definitions

The following terms and definitions apply to this document.

Standard ink when printed on the base substrate, and a layer thickness within the permitted range, in line with four-color printing in this section with respect to color and transparency

provisions Ink.

Transparency Ink ink through the ability to light.