
INTERNATIONAL STANDARD



2846

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Set of printing inks for offset printing — Colorimetric characteristics

Gamme d'encre primaires pour l'impression offset — Caractéristiques colorimétriques

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FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2846 was drawn up by Technical Committee ISO/TC 130, *Graphic technology*, and circulated to the Member Bodies in September 1972.

It has been approved by the Member Bodies of the following countries :

Czechoslovakia	Ireland	Sweden
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The Member Body of the following country expressed disapproval of the document on technical grounds :

Austria

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Set of printing inks for offset printing – Colorimetric characteristics

0 INTRODUCTION

This International Standard is in technical conformity with CEI specification 13-67 of the European Committee of the Paint and Printing Ink Manufacturers' Association defining a "European set of primary colours for offset printing".

1 SCOPE AND FIELD OF APPLICATION

This International Standard extends the set of primary inks for letterpress printing given in ISO 2845 to include primary inks intended for three- or four-colour printing by the offset process, in defined order of printed colour and describes the control method.

It will enable :

- a) photolithographers and photo-engravers to make colour separations for offset printing based on an identical scale so that, irrespective of their different origin, various subjects for colour printing may be assembled on the same montage.
- b) lithographic and other printers to obtain printing inks which, when they are applied in the following conditions and to standard reference paper, can produce results complying with the specifications of this International Standard.

NOTE — This International Standard does not apply to fluorescent inks. Pigments are not covered by this International Standard thereby avoiding prejudice to future development in pigment production.

2 REFERENCES

ISO 2834, *Printing inks — Preparation of standard prints for determination of resistance to physical and chemical agents*.

ISO 2835, *Prints and printing inks — Assessment of light fastness*.

ISO 2837, *Prints and printing inks — Assessment of resistance to solvents*.

ISO 2845, *Set of printing inks for letterpress printing — Colorimetric characteristics*.

3 DEFINITIONS

For the purpose of this International Standard the following definitions apply :

3.1 reference inks : Yellow, magenta and cyan inks from which primary and secondary colours are obtained conforming to the set defined in this International Standard when printed on reference paper and with the reference ink film thickness given in 3.3.

3.2 standard set : A complete series of primary inks intended for three- or four-colour printing of which the colorimetric characteristics comply with the specifications of this International Standard.

3.3 reference film thickness of ink : Thickness of a printed film when printed solid on reference paper, of which the value is between 0,7 and 1,1 μm .

3.4 reference paper : Coated paper as specified in ISO 2834.

3.5 primary colours : Colours of individual prints from yellow, magenta and cyan inks produced under standard conditions, and of which the colorimetric definitions correspond to the numerical values given in 4.2.

3.6 secondary colours : Colours obtained by overprinting primary colours two at a time :

yellow + magenta,

yellow + cyan,

magenta + cyan,

in the conditions specified in this International Standard and with the colorimetric definitions corresponding to the numerical values shown in 4.2. The order of the overprinting of the primary colours is not — subject to specification to the contrary — laid down, but it must be stated in the test report.

4 TEST METHOD

4.1 Principle

Each colour in the set obtained by printing (or overprinting) reference inks under the conditions specified in 5.2 is assessed according to its visual appearance by the values of the colorimetric steps established from measurements made in accordance with the spectrophotometric methods of colorimetry.