
**Graphic technology — Laboratory
preparation of test prints —**

**Part 1:
Paste inks**

*Technologie graphique — Préparation en laboratoire des impressions
d'essai —*

Partie 1: Encres compactes



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

This second edition cancels and replaces the first edition (ISO 2834-1:2006), which has been technically revised.

The main changes compared to the previous edition are as follows.

- The document has been rewritten to a general procedure for prints on many substrates for the use by several standards which require a well-defined print.
- The instruments and materials required for tests are specified, only electrically driven instruments are now included.
- A detailed procedure for conditioning and test execution is provided.
- Annexes are added regarding reference materials, preparation of rubber rollers and maintenance of elastomer rollers.

A list of all parts in the ISO 2834 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document exclusively describes the laboratory test print preparation for paste inks. The methods described in this document can be used in several other International Standards, such as ISO 2846-1, ISO 2846-2 and ISO 2836, and will be the basis for several printability standards to be developed by ISO/TC 6/SC 2 with TC 130. This document provides the tools to make uniform prints with a well-defined ink film thickness which can be used for analysis of the printed surface properties, fastnesses and which can be used for subsequent tests on the substrate or the printed image.

This document describes the procedure to be adopted when using IGT-type and prüfbau-type printability testers to prepare prints on papers, boards, metals, foils and other suitable substrates, for the main targets: reference optical density and reference ink film in g/m^2 on the substrate. Other inks, such as liquid inks for gravure or flexographical printing specified in ISO 2834-2 and screen print ink specified in ISO 2834-3, are developed with a similar structure to this document.

In this method, a procedure has been added to perform a periodic test with reference material to check deterioration of the used materials like rubbers and inks.

Graphic technology — Laboratory preparation of test prints —

Part 1: Paste inks

1 Scope

This document specifies a test procedure for the preparation of test prints on paper, board, metals, foils and other suitable substrates using paste inks, such as for offset and letterpress printing, using electrically driven IGT-type and prüfbau-type printability testers.

This document describes the procedure for reference optical density and reference ink film thickness.

This document describes the method as used on the current models of testers. Most of the described procedures are also applicable in analogy to the older models but can require additional steps to be executed or recalculation of the settings to make them conform to this document

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5-4, *Photography and graphic technology — Density measurements — Part 4: Geometric conditions for reflection density*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 2846-1, *Graphic technology — Colour and transparency of printing ink sets for four-colour printing — Part 1: Sheet-fed and heat-set web offset lithographic printing*

ISO 5631 (all parts), *Paper and board — Determination of colour by diffuse reflectance*

ISO 13655, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>