

# International Standard



# 3762

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## Paper — Preparation of a letterpress print for test purposes

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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 3762 was developed by Technical Committee ISO/TC 6, *Paper, board and pulps*, and was circulated to the member bodies in September 1978.

It has been approved by the member bodies of the following countries :

Austria	Ireland	South Africa, Rep. of
Belgium	Israel	Spain
Brazil	Italy	Sweden
Czechoslovakia	Kenya	Switzerland
Egypt, Arab Rep. of	Libyan Arab Jamahiriya	Turkey
Finland	Mexico	United Kingdom
Germany, F. R.	Netherlands	USA
Hungary	Norway	USSR
India	Poland	
Iran	Romania	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Canada  
France

# Paper — Preparation of a letterpress print for test purposes

## 0 Introduction

Several printing presses make it possible to carry out tests on paper to assess its suitability for particular purposes.

This International Standard gives details of a procedure for preparing reproducible prints by the letterpress process that can be used for subsequent tests which will be dealt with in later publications. It should be recognized that this procedure relates to the preparation of prints in laboratories with various presses that differ considerably in their geometrical and mechanical characteristics. It is emphasized that the nature of the various printing presses is such that for interlaboratory work exactly comparable results may not necessarily be obtained, but the ranking of the prints will usually be consistent.

## 1 Scope

This International Standard specifies a method of preparing a letterpress print in a laboratory for the purpose of testing paper, irrespective of the press used to prepare the print.

## 2 Field of application

Prints prepared by the procedure described in this International Standard are intended for use in carrying out certain tests for printing properties of paper.

## 3 References

ISO 186, *Paper and board — Sampling for testing.*

ISO 187, *Paper and board — Conditioning of samples.*

## 4 Definitions

**4.1 forme** : The cylinder, sector or plate from which the printing is to be carried out.

**4.2 impression pressure** : The pressure (force per unit area) exerted between the paper and the forme in printing.

**4.3 impression linear pressure** : The force per unit length exerted between the paper and the forme in printing.

**4.4 printing speed applied to a cylinder press** : The speed of the paper passing through the impression nip.

**4.5 dwell time applied to a platen press** : The period of time during which the inked portion of the forme and paper are in contact.

**4.6 ink quantity on forme** : The mass of ink per unit printing surface area of the forme.

**4.7 ink quantity on paper** : The mass of ink per unit printed area of the paper.

## 5 Principle

The method consists in :

- 1) making a test print by the use of a letterpress press by :
  - depositing, under reproducible conditions, a known quantity of ink on to a printing forme;
  - transferring, under reproducible conditions, a film of ink on to a paper;

NOTE — This applies equally whether the ink is transferred from a cylindrical forme to a flat sheet of paper, whether the ink is transferred from a flat forme to a sheet of paper on a cylindrical drum, or whether the ink is transferred from a cylindrical forme or sector to a sheet of paper on a cylindrical drum or by a platen press.

- 2) measuring the mass of the ink on the forme before and after printing.

## 6 Equipment

### 6.1 Printing apparatus

The equipment used shall be capable of operating at reproducible printing speed or dwell time and reproducible impression pressure. The inking rollers shall be of such materials that they do not interact adversely with the ink either physically or chemically.

The forme shall have a smooth surface. As it has to be weighed, it shall be detachable and light, so that the quantity of ink on it can be accurately and quickly weighed. It shall not react