
INTERNATIONAL STANDARD



2843

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Prints and printing inks — Determination of the resistance of prints to impregnation by wax or paraffin wax

Impressions et encres d'imprimerie — Détermination de la résistance des impressions à l'impregnation par les cires ou paraffines

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

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 2843 was drawn up by Technical Committee ISO/TC 130, *Graphic technology*, and circulated to the Member Bodies in August 1972.

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

Austria	Germany	Spain
Chile	India	Sweden
Czechoslovakia	Ireland	Switzerland
Denmark	New Zealand	Thailand
Egypt, Arab Rep. of	Poland	Turkey
Finland	Romania	
France	South Africa, Rep. of	

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Italy
United Kingdom

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0 INTRODUCTION

This International Standard is in technical conformity with CEI specification 10-60 of the European Committee of the Paint and Printing Ink Manufacturers' Associations.

1 SCOPE

This International Standard specifies a method for determining the resistance of prints to impregnation by wax or paraffin wax.

2 FIELD OF APPLICATION

This International Standard applies to all print substrates such as paper, board, metals (thin metal sheets or plate) and plastics materials, and to all printing processes : letterpress, lithographic and gravure.

3 DEFINITION

By **resistance of a print to impregnation by wax or paraffin wax** is meant the resistance of a print, to the products used for the test.

The print is considered to be resistant to impregnation by the wax or paraffin wax under test when, under the test conditions and provided that the substrate has undergone no change, any deterioration is only negligible and any running or dripping from the test specimen is not coloured.

4 TEST METHOD

4.1 Principle

A test piece is immersed in the melted wax or paraffin wax under test.

An assessment is made of any changes to the print and any coloration of the runs produced by dripping wax.

NOTE — At relatively high temperatures, prints may undergo changes resulting from such temperatures rather than from any direct effect of the wax or paraffin wax.

4.2 Apparatus and reagent

4.2.1 Shallow porcelain pan.

4.2.2 Wax or paraffin wax, 20 g.

4.3 Procedure

Melt 20 g of the wax or paraffin wax in the porcelain pan and maintain at a temperature of not more than 40 °C above that of the melting point of the reagent in question.

Immerse a 20 mm × 50 mm test piece, leaving a white section measuring 10 mm × 20 mm exposed, in the molten wax or paraffin wax for 5 min.

Then remove the test piece, hang with the white section below the printed part and allow to drip so that the product in contact with the print crosses this white section before falling into the pan.

Allow to cool.

4.4 Assessment of results

Compare the test piece with a control test piece.

Note

- whether the print shows any colour change;
- whether the white part of the test piece or the solidified product in the pan shows any colour change or not.
- whether the film is basically intact and if its adhesion is maintained.

NOTE — Any print change caused by absorption or by the deposit of a thin film of the product under test is not considered to be deterioration in the sense of this International Standard.

4.5 Test report

Quoting this International Standard, state :

- a) the reagent (wax or paraffin wax) under test;
- b) the melting point of the reagent in question and the temperature during the test;
- c) the melting point of the product tested and the test temperature;
- d) the alterations noted if the print colour is modified, and full details of any changes attributable to the substrate, to absorption or to the deposit of a thin film of the reagent under test;
- e) the coloration — or absence of coloration — of the white part of the proof or of the product solidified in the pan.

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