
INTERNATIONAL STANDARD



2842

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Prints and printing inks — Determination of the resistance of prints to edible oils and fats

Impressions et encres d'imprimerie — Détermination de la résistance des impressions aux huiles et graisses alimentaires

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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 2842 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 :

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

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

Austria
Finland
Italy

Prints and printing inks – Determination of the resistance of prints to edible oils and fats

0 INTRODUCTION

This International Standard is in technical conformity with CEI specification 09-60 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 edible fats and oils.

2 FIELD OF APPLICATION

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

3 REFERENCE

ISO/R 105/1, *Tests for colour fastness of textiles – Part 3*.

4 DEFINITION

By **resistance of a print to edible fats and oils** is meant the resistance of a print, prepared according to any printing process, to the products used for the test.

The print is considered to be resistant to the edible fats and oils under test when, under the test conditions and provided that the substrate has undergone no change, any deterioration is only negligible and bleeding is below grade 4 of the grey scale.¹⁾

5 TEST METHOD

5.1 Principle

In the case of fats solid at 20 °C, the printed side of a test piece is applied as perfectly as possible, in direct contact with the fat to be tested.

In the case of edible fats liquid at 20 °C, the printed side of a test piece is pressed against filter papers which have previously been impregnated with oil or spread with soft fat.

An assessment is made of any changes to the print and of any bleeding of the colour into the grease or onto the filter paper.

5.2 Apparatus and reagent

5.2.1 Fats solid at 20 °C.

5.2.1.1 Petri dish.

5.2.1.2 The fat used for the test.

5.2.2 Edible fats liquid at 20 °C and edible oils.

5.2.2.1 Filter paper for quantitative analysis, with a very smooth, non-hardened surface. The size of the strips of filter paper should be 60 mm × 90 mm.

5.2.2.2 The edible oil or fat, used for the test.

NOTE – Liquid emulsions of fat, of the water-in-oil type (for example, mayonnaise) shall not have separated before or after testing.

5.2.2.3 Glass slides, 60 mm × 90 mm.

5.2.2.4 Grey scale for assessment of bleeding. (According to ISO/R 105/1 – Part 3.)

5.3 Procedure

5.3.1 Fats solid at 20 °C

Put the fat to be tested (either melted or compressed) into a Petri dish; ensure that the surface is as flat as possible.

Place a 20 mm × 50 mm test piece with its printed side directly on the surface of the fat; apply it with gentle pressure to obtain as perfect a contact as possible.

1) Certain national bodies in charge of food products require more stringent conditions.