

Imaging materials — Test methods for Arrhenius type predictions

ICS 37.040.20

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

National foreword

This British Standard reproduces verbatim ISO 18924:2000 and implements it as the UK national standard.

The UK participation in its preparation was entrusted to Technical Committee CPW/42, Photography, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to iv, pages 1 to 14, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

This British Standard, having been prepared under the direction of the Consumer Products and Services Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 November 2000

© BSI 11-2000

ISBN 0 580 36425 9

Amendments issued since publication

Amd. No.	Date	Comments

Imaging materials — Test method for Arrhenius-type predictions

*Matériaux d'image — Méthode d'essai pour les prédictions de type
Arrhenius*



Reference number
ISO 18924:2000(E)

Contents		Page
Foreword.....		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Background and theory	2
5	Experimental procedures.....	4
6	Calculations.....	5
7	Test report	6
Annex A (informative) Numbering system for related International Standards.....		8
Annex B (informative) Advantages and disadvantages of sealed-bag and free-hanging incubations		9
Annex C (informative) Limitations of the Arrhenius method [16]		10
Annex D (informative) Examples of Arrhenius relationships		12
Bibliography		14

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 18924 was prepared by Technical Committee ISO/TC 42, *Photography*.

This International Standard is one of a series of standards dealing with the physical properties and stability of imaging materials. To facilitate identification of these International Standards, they are assigned a number within the block from 18900 to 18999 (see informative annex A).

Annexes A to D of this International Standard are for information only.

Imaging materials — Test method for Arrhenius-type predictions

1 Scope

This International Standard specifies a test method for the prediction of certain physical or chemical property changes of imaging materials.

This International Standard is applicable to the Arrhenius test portion of ISO 8225, ISO 9718, ISO 10602, ISO 10977 and ISO 18919.

This International Standard is applicable to the prediction of the optical-density (D) loss or gain of imaging materials. Photographic dye images may be produced by chromogenic processing, by formation of diazo dyes, or by non-chromogenic methods such as dye diffusion and silver dye-bleaching processing. This standard also covers density changes caused by

- residual coupler changes in dye images,
- excess residual processing chemicals in silver black-and-white materials,
- temperature effects on thermally processed silver images.

This International Standard is applicable to the prediction of support degradation. One such example is the generation of acetic acid by degradation of cellulose acetate film support. Another example is the change in tensile energy absorption of black-and-white paper support.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 8225:1995, *Photography — Ammonia-processed diazo photographic film — Specifications for stability*.

ISO 9718:1995, *Photography — Processed vesicular photographic film — Specifications for stability*.

ISO 10602:1995, *Photography — Processed silver-gelatin type black-and-white film — Specifications for stability*.

ISO 10977:1993, *Photography — Processed photographic colour films and paper prints — Methods for measuring image stability*.

ISO 18919:1999, *Imaging materials — Thermally processed silver microfilm (TPS) — Specifications for stability*.