INTERNATIONAL STANDARD

ISO 18918

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Imaging materials — Processed photographic plates — Storage practices

Matériaux pour image — Plaques photographiques développées — Directives pour l'archivage

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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.

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 18918 was prepared by Technical Committee ISO/TC 42, *Photography*.

This first edition cancels and replaces the fourth edition of ISO 3897:1997 of which it constitutes a technical revision.

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 annex A).

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

Introduction

Photographic plates on glass or metal supports have been in existence almost since the beginning of photography. They have become increasingly important as documentary and pictorial reference material in archives, libraries, government, commerce and academia.

The stability and useful life of processed photographic plates depends on their physical and chemical properties, as well as on the conditions under which they are stored and used. This International Standard provides recommendations on proper storage conditions and practices. Although it is difficult to distinguish between the various types of plates covered by the definitions (see 3.7.1 to 3.7.8) with respect to storage life, the recommendations may be applied to all processed photographic plates.

The important storage elements affecting the preservation of processed photographic plates are as follows:

— relative humidity and temperature of the storage environment;

— hazards of fire, water, and light exposure;

— fungal growth and other microorganisms;

— contact with certain chemicals in solid, liquid or gaseous form;

— physical damage.

The extent to which relative humidity and temperature, or variations of both, can be permitted to reach beyond recommended limits without producing adverse effects will depend upon the duration of exposure, biological conditions conducive to fungal growth, and the accessibility of the atmosphere to the surfaces.

The term “archival” is no longer specified to express longevity or stability in International Standards on image materials, since it has been interpreted to have many meanings, ranging from preserving information “forever”, which is unattainable, to temporary storage of actively used materials.

This International Standard defines two levels of recommended storage conditions: medium-term and extended-term. Medium-term storage conditions can be used to preserve plates for a minimum of 10 years. Extended-term storage conditions will prolong the life of all plates, even those not optimized for permanence.

The space requirements and costs for establishing and operating the two levels of storage conditions (medium-term and extended-term) differ significantly. Furthermore, the specified limits of temperature and relative humidity for both sets of storage conditions may not be realizable due to budgetary constraints, energy considerations, climatic conditions, building construction, etc. However, it must be recognized that temperatures and relative humidities which are higher than the specified conditions will reduce the effectiveness of the storage environment. If such deviation is unavoidable, the environmental conditions closest to the specified limits should be provided. In any event, the best preservation of plates will be attained with extended-term conditions.

The recommendations of this International Standard for processed photographic plates encompass the following:

— storage enclosures, housing and rooms;

— atmospheric and environmental conditions;

— fire protection;

— handling and inspection procedures.

This International Standard does not pertain to means or methods for protecting photographic plates against natural or man-made catastrophes, with the exception of fire and its associated hazards; these are sufficiently common to warrant inclusion of protective measures.

Imaging materials — Processed photographic plates — Storage practices

1 Scope

1.1 This International Standard specifies dark storage conditions, storage facilities, and handling and inspecting procedures for processed photographic plates having integral photographic layers and intended for record purposes.

1.2 This International Standard is applicable to black-and-white, silver-image, gelatin, processed photographic plates as defined in 3.7.7. It is also applicable to medium-term and extended-term storage conditions as defined in 3.6 and 3.2, respectively.

No specific distinction is made, other than the degree of care, between photographic plates for medium-term or extended-term storage. Recommendations for plate storage relate to materials, methods, conditions, and forms of protection applicable specifically to plates defined in 1.1. However, these storage recommendations may also be applied to lacquered and opaque plates, to black-and-white plates altered by dyes or toners, colour plates and other historic photographic plates defined in 3.7.2 to 3.7.8.

1.3 It is not intended to predict or assign a useful lifetime to processed photographic plates stored in accordance with the specifications of this International Standard.

1.4 Recommendations for storage of photographic films are given in ISO 18911 and for storage of processed photographic reflection print material in ISO 18920.

Although there is some variation in recommended storage conditions among these types of photographic materials, recommended temperature and relative humidity ranges do overlap. If all three types of photographic materials are found in one collection or within one storage area, the temperature and relative humidity should be chosen so that all materials are stored within their recommended ranges.

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 14523:1999, *Photography — Processed photographic materials — Photographic activity test for enclosure materials.*

ISO 18902:—[1)], *Imaging materials — Processed films, plates and papers — Filing enclosures and storage containers.*

ISO 18911:—[1)], *Imaging materials — Processed safety photographic films — Storage practices.*

ISO 18920: —[1)], *Imaging materials — Processed reflection prints — Storage practices.*

1) To be published.