

## § 1238.10

Microfilm Carriers and Apertures (Aperture, Camera, Copy and Image Cards), July 16, 1996, IBR approved for § 1238.10.

(7) ANSI/AIIM MS43-1998 (“ANSI/AIIM MS43”), Standard Recommended Practice—Operational Procedures—Inspection and Quality Control of Duplicate Microforms of Documents and From COM), June 2, 1998, IBR approved for § 1238.14.

(8) ANSI/AIIM MS45-1990 (“ANSI/AIIM MS 45”), Recommended Practice for Inspection of Stored Silver-Gelatin Microforms for Evidence of Deterioration, January 22, 1990, IBR approved for § 1238.22.

(9) ISO 18911:2000 (“ISO 18911”), Imaging materials—Processed safety photographic films—Storage practices, First Edition, November 1, 2000, IBR approved for § 1238.20.

(d) *Techstreet*. The following standards are available from the standards reseller Techstreet, 3916 Ranchero Drive, Ann Arbor, MI 48108, phone number (800) 699-9277, or online at [www.Techstreet.com](http://www.Techstreet.com).

(1) ISO 18901:2002 (“ISO 18901”), Imaging Materials—Processed silver-gelatin type black-and-white films—Specifications for stability, February 15, 2002, IBR approved for §§ 1238.10, 1238.14, and 1238.20.

(2) Reserved

(e) *Document Center Inc.* The following are available from the standards reseller the Document Center Inc., 111 Industrial Road, Suite 9, Belmont, CA, 94002, phone number (650) 591-7600, or online at <http://www.document-center.com>.

(1) ANSI/NAPM IT2.19-1994 (“ANSI/NAPM IT2.19”), American National Standard for Photography—Density Measurements—Part 2: Geometric Conditions for Transmission Density, February 20, 1995, IBR approved for § 1238.14.

(2) ANSI/PIMA IT9.2-1998 (“ANSI/PIMA IT9.2”), Photographic Processed Films, Plates, and Papers—Filing Enclosures and Storage Containers, April 15, 1998, IBR approved for §§ 1238.10 and 1238.20.

(3) ANSI/AIIM MS 23-1998 (“ANSI/AIIM MS23”), Standard Recommended Practice—Production, Inspection, and Quality Assurance of First-Generation,

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Silver Microforms of Documents, June 2, 1998, IBR approved for §§ 1238.10 and 1238.14.

(4) ANSI/ISO 3334-1991, ANSI/AIIM MS51-1991 (“ANSI/ISO 3334, ANSI/AIIM MS51”), Micrographics—ISO Resolution Test Chart No. 2—Description and Use, May 10, 1991, IBR approved for § 1238.14.

(5) ANSI/NAPM IT2.18-1996 (“ANSI/NAPM IT2.18”), American National Standard for Photography—Density Measurements—Part 3: Spectral Conditions, March 8, 1996, IBR approved for § 1238.14.

### Subpart B—Microfilming Standards

#### § 1238.10 What are the format standards for microfilming records?

The following formats must be used when microfilming records:

(a) *Roll film*—(1) *Source documents*. The formats described in ANSI/AIIM MS14 (incorporated by reference, see § 1238.5) must be used for microfilming source documents on 16mm and 35mm roll film. A reduction ratio no greater than 1:24 is recommended for correspondence or similar typewritten documents. Use ANSI/AIIM MS23 (incorporated by reference, see § 1238.5) for the appropriate reduction ratio and format for meeting image quality requirements. When microfilming on 35mm film for aperture card applications, the format dimensions in ANSI/AIIM MS32 (incorporated by reference, see § 1238.5), Table 1 must be used, and the aperture card format “D Aperture” shown in ANSI/AIIM MS41 (incorporated by reference, see § 1238.5), Figure 1, must be used. The components of the aperture card, including the paper and adhesive, must conform to the requirements of ANSI/PIMA IT9.2 (incorporated by reference, see § 1238.5). The 35mm film used in the aperture card application must conform to film designated as LE 500 in ISO 18901 (incorporated by reference, see § 1238.5).

(2) *COM*. Microfilm created using computer output microfilm (COM) technology must use the simplex mode described in ANSI/AIIM MS14 (incorporated by reference, see § 1238.5) at an effective ratio of 1:24 or 1:48 depending upon the application.

(b) *Microfiche*. When creating microfiche, either by microfilming source documents or using COM technology, the formats and reduction ratios prescribed in ANSI/AIIM MS5 (incorporated by reference, see § 1238.5) must be used as specified for the size and quality of the documents being filmed. Use ANSI/AIIM MS23 (incorporated by reference, see § 1238.5) for determining the appropriate reduction ratio and format for meeting the image quality requirements.

(c) *Index placement*—(1) *Source documents*. When microfilming source documents, place indexes, registers, or other finding aids, if microfilmed, either in the first frames of the first roll of film or in the last frames of the last roll of film of a series. For microfiche, place the indexes in the last frames of the last microfiche or microfilm jacket of a series.

(2) *COM*. Place indexes on COM following the data on a roll of film, in the last frames of a single microfiche, or in the last frames of the last fiche in a series. Other locations for indexes may be used only if dictated by special system constraints.

#### § 1238.12 What documentation is required for microfilmed records?

Agencies must ensure that the microforms capture all information contained on the source documents and that they can be used for the purposes the source documents served. Microform records must be labeled and organized to support easy retrieval and use. Agencies must:

(a) Arrange, describe, and index the filmed records to permit retrieval of any particular document or component of the records.

(b) Title each microform roll or fiche with a titling target or header. For fiche, place the titling information in the first frame if the information will not fit on the header. At a minimum, titling information must include:

- (1) The title of the records;
- (2) The number or identifier for each unit of microform;
- (3) The security classification, if any; and
- (4) The name of the agency and sub-organization, the inclusive dates, names, or other data identifying the

records to be included on a unit of microform.

(c) Add an identification target showing the date of microfilming. When necessary to give the microform copy legal standing, the target must also identify the person who authorized the microfilming. Use ANSI/AIIM MS19 (incorporated by reference, see § 1238.5) for standards for identification targets.

#### § 1238.14 What are the microfilming requirements for permanent and unscheduled records?

(a) Agencies must apply the standards in this section when microfilming:

(1) Permanent paper records where the original paper record will be destroyed (only after authorization from NARA);

(2) Unscheduled paper records where the original paper record will be destroyed (only after authorization from NARA); and

(3) Permanent and unscheduled original microform records (no paper originals) produced by automation, such as COM.

(b) Agencies must use polyester-based silver gelatin type film that conforms to ISO 18901 (incorporated by reference, see § 1238.5) for LE 500 film in all applications.

(c) Agencies must process microforms so that the residual thiosulfate ion concentration will not exceed 0.014 grams per square meter in accordance with ISO 18901 (incorporated by reference, see § 1238.5) and use the processing procedures in ANSI/AIIM MS1 and ANSI/AIIM MS23 (both incorporated by reference, see § 1238.5).

(d) Agencies must use the following standards for quality:

(1) *Resolution*—(i) *Source documents*. Agencies must determine minimum resolution on microforms of source documents using the method in the Quality Index Method for determining resolution and anticipated losses when duplicating, as described in ANSI/AIIM MS23 and ANSI/AIIM MS43 (both incorporated by reference, see § 1238.5). Agencies must perform resolution tests using an ANSI/ISO 3334 Resolution Test Chart (incorporated by reference, see § 1238.5) or a commercially available certifiable target manufactured to comply with this standard, and read