

SINGAPORE STANDARD

**Code of practice for microfilming of documents on 16 mm black and white, silver-gelatin type microfilm/planetary and rotary camera filming – Operating procedures**



Published by

**Enterprise**  
**Singapore**

**SS 520 : 2013**  
(ICS 37.080)

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ISBN 978-981-4353-83-0

This Singapore Standard was approved by Chemical Standards Committee on behalf of the Singapore Standards Council on 6 March 2013.

First published, 1998 as CP 69.

First revision and renumbered as SS 520, 2006.

Second revision, 2013.

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## **Foreword**

This Singapore Standard is prepared by the Technical Committee on Microfilming under the direction of the Chemical Standards Committee. It is a revision of SS 520 : 2006.

This Singapore Standard provides useful operating procedures for microfilming of documents on 16 mm black and white, silver gelatin type microfilm using planetary and rotary cameras.

Microfilm is used in many organisations such as government departments, archives, libraries and banks. It is important as a medium for preservation of documents – forms, books and other printed materials. Other reasons/advantages of using microfilm include:

- a) back-up of vital records;
- b) used as secondary evidence in a court of law; and
- c) saving of storage space.

However, for the microfilmed copy to be used as a substitute for the original documents, it is crucial that the documents are microfilmed properly. This Singapore Standard is intended to serve as a standard reference for the proper microfilming of source documents.

This revision provides an update on the commonly used reduction ratios, voltage stabilisation and handling of exposed microfilm. It includes a new section on winding of processed microfilm and labelling of microfilm container for ease of identification. Obsolete reduction ratios were removed from the section on filming format. The flow of Annex A was also improved for easy reading.

In preparing this standard, reference was made to the following publications:

ANSI IT9.6 : 1991 (R1996)	Photography – Photographic films – Specifications for safety film
ANSI/AIIM MS 17 : 1992	Test chart for rotary microfilm cameras
ANSI/AIIM MS 23 : 2004	Recommended practice for operational procedures / production, inspection and quality assurance of first-generation silver microforms of documents
ISO 3334 : 2006	Micrographics – ISO resolution test chart No. 2 – Description and use
ISO 6148 : 2001	Photography – Micrographics films, spools and cores – Dimensions
ISO 6196	Micrographics – Vocabulary
	Part 1 : 1993 General terms
	Part 2 : 1993 Image positions and methods of recording
	Part 4 : 1998 Materials and packaging
	Part 5 : 1987 Quality of images, legibility, inspection
	Part 6 : 1992 Equipment
ISO 6199 : 2005	Micrographics – Microfilming of documents on 16 mm and 35 mm silver gelatin type microfilm – operating procedures
ISO 9878 : 1990	Micrographics – Graphic symbols for use in microfilming
ISO 10196 : 2003	Document imaging applications – Recommendations for the creation of original documents
ISO 10198 : 1994	Micrographics – Rotary camera for 16 mm microfilm – Mechanical and optical characteristics
ISO 10550 : 1994	Micrographics – Planetary camera systems – Test target for checking performance

ISO 18901 : 2010

Imaging materials – Processed silver-gelatin type black-and-white films  
– Specifications for stability

Table 3 of this standard was taken from *ANSI/AIIM MS 17 : 1992 – 'Micrographics – Rotary (Flow) microfilm camera test chart and test target – Descriptions and use'* and reproduced with permission from AIIM International. Copyright remains with AIIM International.

Clause 5.18 and Figure 8 of this standard were reproduced from Clause 11 and Figure 4 of *ISO 6199: 2005 - Micrographics – Microfilming of documents on 16 mm and 35 mm silver gelatin type microfilm – operating procedures*. Copyright remains with ISO.

Acknowledgement is made for the use of information from the above publications.

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

**NOTE**

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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# Code of practice for microfilming of documents on 16 mm black and white, silver-gelatin type microfilm/using planetary and rotary camera filming – Operating procedures

## 1 Scope

This Singapore Standard shall apply to the microfilming of source documents on 16 mm black and white, silver gelatin type microfilm using planetary and rotary cameras. It describes filming conditions and procedures.

This Singapore Standard does not cover the following:

- a) Quality control;
- b) Filming on 35 mm and 105 mm formats;
- c) Colour microfilming;
- d) Filming on 16 mm camera-processor; and
- e) Filming on 35 mm planetary camera using 16 mm format.

## 2 Normative references

The following referenced documents are indispensable for the application of this Singapore Standard. The latest edition of the referenced document (including any amendments) applies.

ANSI/AIIM MS 17	Test chart for rotary microfilm cameras
ISO 3334	Micrographics – ISO resolution test chart – No. 2 – Description and use
ISO 6148	Photography – Micrographic films, spools and cores – Dimensions
ISO 9878	Micrographics – Graphic symbols for use in microfilming
ISO 10196	Document imaging applications – Recommendations for the creation of original documents
ISO 18901	Imaging materials – Processed silver-gelatin type black-and-white films – Specifications for stability