

SINGAPORE STANDARD

**Code of practice for microfilming of
technical drawings and other drawing
office documents on 35 mm black and
white, silver-gelatin type microfilm /
planetary camera filming – Operating
procedures**

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Foreword

As
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Mar 13

This Singapore Standard Code of Practice is prepared by the Technical Committee on Microfilming under the purview of the Chemical Standards Committee. It is a revision of CP 70. CP 70 has been re-numbered as SS 521.

This Singapore Standard provides useful operating procedures for microfilming technical drawings and other drawing office documents on 35 mm black and white, silver-gelatin type microfilm using planetary cameras. For colour microfilming, readers may wish to refer to the American National Standard for Information and Image Management – Recommended Practice for Microphotography of Cartographic Materials ANSI/AIIM MS 37-1988.

Microfilm is used in many organisations such as government departments, archives, libraries and architectural and engineering offices. It is an important preservation medium for drawing documents and cartographic 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 drawing documents, it is crucial that the drawing documents are microfilmed properly. This Singapore Standard is intended to serve as a standard reference for the proper microfilming of drawing documents.

This revision provides an update on scaling, use of declaration or authorisation targets, the requirements of technical targets, and appropriate handling of exposed microfilm.

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

ANSI/AIIM MS 32 : 1996	Microrecording of engineering source documents on 35 mm microfilm
ANSI/AIIM MS 37 : 1988	Recommended practice for microphotography of cartographic materials
ANSI/AIIM MS 23 : 1998	American National Recommended Practice for operational procedures / production, inspection and quality assurance of first-generation silver microforms of documents
ANSI IT9.6 : 1991	American National Standard for Photography – Photographic films – Specifications for safety film
BS 5537 : 1991	Guide to form design sheet and layout chart
ISO 3272	Microfilming of technical drawings and other drawing office documents Part 1 : 2003 Operating procedures Part 2 : 1994 Quality criteria and control of 35 mm silver gelatin microfilms Part 4 : 1994 Microfilming of drawings of special and exceptional elongated sizes
ISO 3334 : 1989	Micrographics – ISO resolution test chart – No. 2 – Description and use
ISO 5457 : 1999	Technical product documentation – Sizes and layout of drawing sheets Micrographics – Vocabulary

ISO 6196	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 : 1991	Micrographics – Microfilming of documents on 16mm and 35mm silver gelatin type microfilm – Operating procedures	
ISO 6428 : 1982	Technical drawings – Requirements for microcopying	
ISO 9878 : 1990	Micrographics – Graphic symbols for use in microfilming	
ISO 10550 : 1994	Micrographics – Planetary camera systems – Test target for checking performances	
ISO 18901 : 2002	Imaging materials – Processed silver-gelatin type black-and-white films – Specifications for stability	

Figures 3, 4 and 5 of this standard have been taken from ANSI/AIIM MS 37 : 1988 – ‘Recommended practice for microphotography of cartographic materials’ and reproduced with permission from AIIM International.

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 technical drawings and other drawing office documents on 35 mm black and white, silver-gelatin type microfilm / planetary camera filming – Operating procedures

1 Scope

This Singapore Standard shall apply to the microfilming of technical drawings and other drawing office documents on 35 mm black and white, silver-gelatin type microfilm using planetary cameras only. It describes filming conditions and procedures.

This Singapore Standard does not cover the following:

- a) quality control;
- b) filming on 16 mm and 105 mm formats;
- c) colour microfilming; and
- d) filming on 35 mm camera-processor.

2 Normative references

The following referenced documents are indispensable for the application of this Singapore Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3334	Micrographics – ISO resolution test chart – No. 2 – Description and use
ISO 5457	Technical product documentation – Sizes and layout of drawing sheets
ISO 9878	Micrographics – Graphic symbols for use in microfilming
ISO 18901	Imaging materials – Processed silver-gelatin type black-and-white films – Specifications for stability