American National Standard

*for Imaging Materials –*

# *Life Expectancy of Magneto-Optic (MO) Disks – Method for Estimating, Based on Effects of Temperature and Relative Humidity*

*ANSI/PIMA IT9.26-1997*

ANSI American National Standards Institute
11 West 42nd Street
New York, New York
10036

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# Life Expectancy of Magneto-Optic (MO) Disks – Method for Estimating, Based on Effects of Temperature and Relative Humidity

Secretariat

**Photographic & Imaging Manufacturers Association, Inc.**

Approved December 2, 1997

**American National Standards Institute, Inc.**

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## Foreword (This foreword is not part of American National Standard ANSI/PIMA IT9.26-1997.)

This standard was prepared by a Joint Technical Commission of PIMA IT9-5 on Optical & Magnetic Imaging Materials and Subcommittee SC-03 on Audio Preservation and Restoration of the Audio Engineering Society Standards Committee.

There are two annexes in this standard. Both are informative and are not considered part of this standard.

Suggestions for improvement of this standard will be welcome. They should be sent to the Photographic & Imaging Manufacturers Association, Inc., 550 Mamaroneck Avenue, Suite 307, Harrison, NY 10528-1612, E-mail: Natlstds@pima.net.

This standard was processed and approved for submittal to ANSI by PIMA Technical Committee IT9 on the Physical Properties and Permanence of Imaging Materials. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the IT9 Committee had the following members:

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Steven Puglia, Vice-Chairman
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# Life Expectancy of Magneto-Optic (MO) Disks – Method for Estimating Based on Effects of Temperature and Relative Humidity

## 1 Scope

This standard specifies test methods for estimating the storage life expectancy (LE) of information stored on rewritable and write-once magneto-optic media. Only the effects of temperature and relative humidity are considered.

### 1.1 Purpose

The purpose of this standard is to establish a methodology for estimating the storage life expectancy of information stored on magneto-optic disks. This methodology provides a technically and statistically sound procedure for obtaining and evaluating accelerated test data. The methodology deals only with the effects of temperature and humidity on the storage of media.

### 1.2 Assumptions

**1.2.1** Failure mechanisms acting at the usage conditions are the same as those at the accelerated conditions.

**1.2.2** The linearity of the rate estimated over the accelerated and design conditions is valid.

**1.2.3** All failure mechanisms have been accounted for and appropriately modeled.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid standards.

ANSI/IEEE 101-1995, *Guide for the statistical analysis of thermal life test data*

ISO/IEC 10089:1991, *Information technology – 130 mm rewritable optical disk cartridge for information interchange* [1)]

ISO/IEC 10090:1992, *Information technology – 90 mm optical disk cartridge, rewritable and read only, for data interchange* [1)]

ISO/IEC 11560:1992, *Information technology – Information interchange on 130 mm optical disk cartridges using the magneto-optical effect, for write once, read multiple functionality* [1)]

ISO/IEC 13549:1994, *Information technology – 130 mm optical disk cartridges – Capacity: 1.3 gigabytes per cartridge – For data interchange* [1)]

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1) Available from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036.