

## SYNOPSIS OF IS/ISO/IEC 16963:2015 of LITD

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**Number and Title of the Indian Standard:** IS/ISO/IEC 16963:2015; Information technology — Digitally recorded media for information interchange and storage — Test method for the estimation of lifetime of optical disks for long-term data storage


a) Scope:

This International Standard specifies an accelerated aging test method for estimating the lifetime of the retrievability of information stored on recordable or rewritable optical disks. The method is based on the theoretical assumption that the lifetime of data recorded on an optical disk has a lognormal distribution. Detailed testing is specified for the following formats: DVD-R/RW/RAM disks, +R/+RW disks, CD-R/RW disks and BD recordable / rewritable disks. The testing can be applied to additional optical-disk formats with substitution of the appropriate specifications and can also be updated by committee in the future as required.

This International Standard includes:

- stress conditions
- Basic and Rigorous stress-conditions for testing and subsequent analysis using both the Eyring and Arrhenius methods;
- ambient storage conditions in which the lifetime of data stored on optical disk is estimated
- a Controlled storage-condition, 25 °C and 50 % RH, representing full-time air conditioning. The Eyring method is used to estimate the lifetime under this storage condition;
- a Harsh storage-condition, 30 °C and 80 % RH, representing the most severe conditions in which users handle and store optical disks. The Arrhenius method is used to estimate the lifetime under this storage condition;
- a description of the evaluation system;
- procedures for specimen preparation and data acquisition;
- definitions and methods used in testing specific disk types;
- analysis of test results to determine the lifetime of stored data;
- a format for reporting the estimated lifetime of stored data.

The methodology includes only the effects of temperature and relative humidity. It does not attempt to model degradation due to complex failure mechanism kinetics, nor does it test for exposure to light, corrosive gases, contaminants, handling, or variations in playback subsystems. Disks exposed to these additional sources of stress or higher levels of temperature and relative humidity are expected to experience shorter usable lifetimes.



b) Salient features of content:

This International Standard specifies an accelerated aging test method for estimating the lifetime of the retrievability of information stored on recordable or rewritable optical disks. The method is based on the theoretical assumption that the lifetime of data recorded on an optical disk has a lognormal distribution.

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c) Types/grades/classes, if any covered in the standard: NA

d) Disclaimer (to be automatically provided by the program/software)