INTERNATIONAL STANDARD

ISO 18921

Second edition 2008-10-15

Imaging materials — Compact discs (CD-ROM) — Method for estimating the life expectancy based on the effects of temperature and relative humidity

Matériaux pour l'image — Disques compacts (CD-ROM) — Méthode d'estimation de l'espérance de vie basée sur les effets de la température et de l'humidité relative

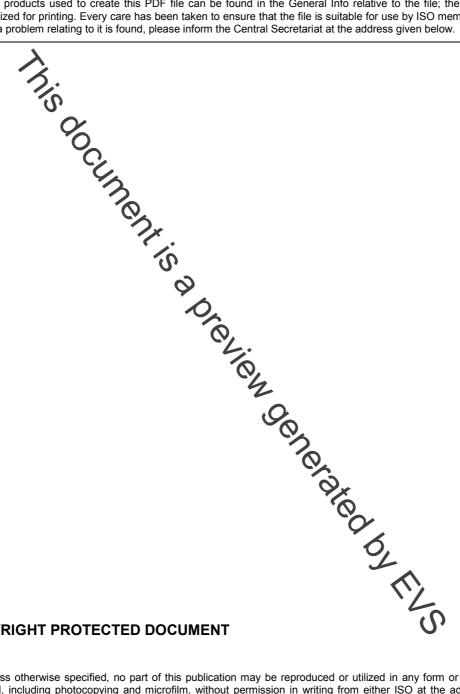


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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in Maison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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I The main task of technical control tees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent

This second edition cancels and replaces the fire edition (ISO 18921:2002), of which it constitutes a minor

Imaging materials — Compact discs (CD-ROM) — Method for estimating the life expectancy based on the effects of temperature and relative humidity

1 Scope

This International Standard specifies a test method for estimating the life expectancy (LE) of information stored on compact disc (CD-ROM) media, including CD audio, but excluding recordable media. Only the effects of temperature and relative humidity on the media are considered.

2 Normative references

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

ISO/IEC 10149¹⁾, Information technology (CD-ROM)

pata interchange on read-only 120 mm optical data disks

3 Terms and definitions

For the purposes of this document, the following terms and efinitions apply.

3.1

cumulative distribution function

F(t)

probability that a random unit drawn from the population fails by time t, or the fraction of all units in the population which fails by time t

3.2

survivor function

R(t)

probability that a unit drawn from the population will survive at least time t or the fraction of units in the population that will survive at least time t

NOTE R(t) = 1 - F(t).

3.3

baseline

condition representing the disc at time of manufacture

NOTE This is customarily the initial parameter measurement taken prior to any application of stress. The designation is usually t = 0 for a stress time equal to zero hours.

¹⁾ Equivalent to ECMA 130.