

TECHNICAL REPORT



**Multimedia systems and equipment – Multimedia e-publishing and e-book –
Guideline for protection against mechanical stress during distribution of
e-books in CD and DVD media**



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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MULTIMEDIA SYSTEMS AND EQUIPMENT –
MULTIMEDIA E-PUBLISHING AND E-BOOK –
GUIDELINE FOR PROTECTION AGAINST MECHANICAL STRESS
DURING DISTRIBUTION OF E-BOOKS IN CD AND DVD MEDIA**

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IEC 62780, which is a technical report, has been prepared by technical area 10: Multimedia e-publishing and e-book technologies, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
100/1927/DTR	100/1972/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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INTRODUCTION

Some e-books are distributed by using interchangeable optical storage media such as CDs and DVDs. Those storage media are distributed being bound in paper books/magazines or attached to them in other appropriate manners. The media bound or included in books/magazines are suffered from strong pressure during their distribution and/or keeping, and sometimes become so damaged (broken or distorted) that e-book data can no longer be read.

In order to minimize those damages of e-books during their distribution, a guideline for protection against mechanical stress during distribution of e-books is required. Existing standards of optical storage media specify nothing about stress-strain characteristics. The guideline should specify how to deal with interchangeable optical storage media bound or included in paper books/magazines. Those specifications should be based on the stress-strain characteristics of the interchangeable optical storage media.

MULTIMEDIA SYSTEMS AND EQUIPMENT – MULTIMEDIA E-PUBLISHING AND E-BOOK – GUIDELINE FOR PROTECTION AGAINST MECHANICAL STRESS DURING DISTRIBUTION OF E-BOOKS IN CD AND DVD MEDIA

1 Scope

This Technical Report provides protection schemes against mechanical stress during distribution or keeping of e-books (see IEC 62229) stored in interchangeable optical storage media such as CDs and DVDs, and shows the stress-strain characteristics of the interchangeable storage media from which the protection schemes are derived.

This Technical Report supplements the information of handling multimedia e-books defined in IEC/TS 62229.

2 Normative references

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

IEC 62229:2005, *Multimedia systems and equipment – Multimedia e-publishing and e-book – Conceptual model for multimedia e-publishing*

3 Terms and definitions

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

3.1

residual strain

permanent strain after unloading

3.2

retaining force of disk center hole

friction force between the center hole of a disk and the protrusion of the disk holder in a disk case, to hold the disc in the disk case

Note 1 to entry: This force depends on the diameter of the center hole, the diameter of the disk holder protrusion, material and the surface finish of the protrusion, and of the structure of the disk holder.

3.3

elastic limit

residual strain generated when stress limit is exceeded

3.4

casebound book

book consisting of a stitched book block and bound in a hard cover