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Information on Optical Disk Cartridges (ODC) shipping packages and ODC labels

Informations relatives aux cartouches de disques optiques (ODC) à imprimer sur les emballages de transport, les zones imprimées ODC et les étiquettes ODC

Reference number
ISO 10922:2000(E)

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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 liaison 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 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10922 was prepared by Technical Committee ISO/TC 171, *Document imaging applications*, Subcommittee SC 2, *Application issues*.

Annex A forms a normative part of this International Standard. Annexes B and C for information only.

Introduction

Shipping packages for Optical Disk Cartridges (ODC) vary. For example, ODC shipping packages may consist of a box which contains jewel boxes (e.g., 5 or 10), each containing one ODC. The jewel boxes may be covered by a J-sleeve.

Information printed on components of the shipping package assists suppliers and users in identifying contents and making decisions on handling, shipping and storage without opening the package.

Information on Optical Disk Cartridges (ODC) shipping packages and ODC labels

1 Scope

This International Standard specifies information that shall be printed by the manufacturer or supplier of ODCs on the different components of the shipping packages and on the ODC printed areas. Information that may be printed in the ODC labels by the manufacturer, supplier or users is also specified.

This International Standard also specifies additional information that shall be printed on the different components of the shipping package or shall be included with the shipping package.

This International Standard applies to all writable Optical Disk (OD) sizes and types including write-once read multiple (WORM), rewritable, read only, and partially read only media, e.g., magneto-optical (MO) rewritable combined with read only or phase change (PC) rewritable combined with read only. Compact disc (CD) media is beyond the scope of this International Standard.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

2.1 90 mm ODC

ISO/IEC 10090:1992, *Information technology — 90 mm optical disk cartridges, rewritable and read-only, for data interchange.*

ISO/IEC 13963:1995, *Information technology — Data interchange on 90 mm optical disk cartridges — Capacity: 230 megabytes per cartridge.*

2.2 130 mm ODC

ISO/IEC 9171-1:1990, *Information technology — 130 mm optical disk cartridge, write once, for information interchange — Part 1: Unrecorded optical disk cartridge.*

ISO/IEC 9171-2:1990, *Information technology — 130 mm optical disk cartridge, write once, for information interchange — Part 2: Recording format.*

ISO/IEC 10089:1991, *Information technology — 130 mm rewritable optical disk cartridge for information interchange.*

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.*

ISO/IEC 13481:1993, *Information technology — Data interchange on 130 mm optical disk cartridges — Capacity: 1 gigabyte per cartridge.*

ISO/IEC 13549:1993, *Information technology — Data interchange on 130 mm optical disk cartridges — Capacity: 1,3 gigabytes per cartridge.*

ISO/IEC 13842:1995, *Information technology — 130 mm optical disk cartridges for information interchange — Capacity: 2 Gbytes per cartridge.*

2.3 300 mm ODC

ISO/IEC 13403:1995, *Information technology — Interchange on 300 mm optical disk cartridges of the write once, read multiple (WORM) type using the CCS method.*

ISO/IEC 13614:1995, *Information technology — Interchange on 300 mm optical disk cartridges of the write once, read multiple (WORM) type using the SSF method.*

2.4 356 mm ODC

ISO/IEC 10885:1993, *Information technology — 356 mm optical disk cartridge for information interchange — Write once.*

2.5 Other references

ISO 12651, *Electronic imaging — Vocabulary.*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 12651 and the following apply.

3.1
caddy
enclosure which protects the OD and carrier from contamination and damage due to physical handling

[ISO/IEC 10885]

NOTE The caddy may include space for physical labelling, write-inhibit features and provisions for automatic handling. The term “caddy” is typically used for 356 mm OD. In this International Standard, ODC also refers to caddy. See ODC.

3.2
case
housing for an OD that protects the disk and facilitates disk interchange

[ISO/IEC 9171:1, ISO/IEC 10885, ISO/IEC 10089, ISO/IEC 10090, ISO/IEC 11560]

3.3
Compact Disc Read-only Memory (CD-ROM)
ODs that contain file(s) of prerecorded information for retrieval by commonly available search and retrieval software

3.4
jewel box
a box, usually made of plastic, that contains the ODC

3.5
J-sleeve
jacket that contains the jewel box with the ODC

3.6
Optical Disk (OD)
disk that will accept and retain information in the form of marks in a recording layer that can be read by an optical beam

[ISO/IEC 9171, ISO/IEC 10885, ISO/IEC 10089, ISO/IEC 10090, ISO/IEC 11560]

3.7
Optical Disk Cartridge (ODC)
device consisting of a case containing an OD

[ISO/IEC 9171, ISO/IEC 10885, ISO/IEC 10089, ISO/IEC 10090, ISO/IEC 11560]

3.8
OD carrier
framework which captures and holds an OD except when the OD is mounted on the disk drive spindle

[ISO/IEC 10885]

NOTE The carrier provides the interface with the equipment for handling of an OD. The carrier and the OD are permanently mated and as a sub assembly interchangeable with any caddy, disk drive or library equipment.

3.9
ODC label
physical label for an ODC

3.10
ODC shipping packages
wrappings used to provide protection for ODCs during shipping and storage

3.11
Rewritable ODs
ODs where original information recorded in a given area can be erased and replaced with new information

3.12
Write-Once-Read-Multiple ODs
ODs used to store information that cannot be altered or erased and where a recorded area cannot be reused

NOTE WORM ODs are popularly described as WORM disks.

3.13
printed area
area on the case of an OD, the surface of which has been treated to accept print

3.14
supplier
organization that supplies ODCs manufactured by another organization

4 Information on ODC shipping packages and ODC printed areas

4.1 ODC shipping packages

The design of shipping packages for ODCs varies. For example, ODC shipping packages may consist of a box which contains jewel boxes (e.g., 5 or 10), each containing one ODC. The jewel boxes may be covered by a J-sleeve.

4.2 ODC printed areas

This Clause specifies the information that shall be printed by the manufacturer or supplier of ODCs on the different components of the ODC shipping packages and the ODC printed areas. Additional information that shall be included with the shipping package is also specified. Information printed in the different components of the shipping package assists users to identify the ODC type and make storage decisions without opening the shipping package. Optional information is listed in Annex B.

4.2.1 Company identification

Company name, logo or other unique manufacturer or supplier identification.

4.2.2 Manufacturer's code

Code or lot number, i.e., product code or batch code, that identifies the OD media.

4.2.3 Product/media type

Type of OD, e.g., WORM, rewritable magneto-optic (MO), rewritable phase change (PC), totally rewritable, partial ROM, fully ROM, MO-WORM.

4.2.4 Dimensions

Nominal outside diameter of the OD specified in millimetres.

4.2.5 Standard designation

ODC compliance to a media interchange standard, e.g., ISO/IEC number, ECMA number.

4.2.6 Sector size

Number of bytes per sector, e.g., 512 B, 1024 B, 2048 B.

4.2.7 Sides and layers

Number of sides, e.g., single, or double-sided.

4.2.8 Nominal capacity

Number of user-recordable bytes on the disk.

4.2.9 Disk format

Specifies whether or not the disk has been formatted, i.e., formatted to a media interchange standard format.

4.2.10 Disk certification

Specifies whether or not the disk has been certified.

4.2.11 Disk high level format

Specifies whether or not the disk has been formatted with a high level format, e.g. DOS, Unix, OS/2.

4.2.12 Date

Date of manufacture or release.

4.2.13 Shipping, storage and operating environments

Information on recommended shipping, storage and operating environments, e.g., suggested temperature, relative humidity, temperature and relative humidity gradient, and atmospheric pressure, shall be printed on the different parts of the shipping package or on a separate sheet that shall be included with the ODC. As an alternative to printing comprehensive information about these environments other than the recommended temperature and relative humidity, the manufacturer may refer the users and suppliers to the related media interchange standard (see Clause 2). ODC media interchange standards listed in Clause 2 include detailed information about these environments.

Annex C lists related International Standards projects under development for ODC interchange specifications. These documents also include detailed specifications on shipping, storage, and operating environments**.**

4.2.14 Drive types

Types of drives capable of reading or writing on the OD.

4.2.15 Special handling conditions

Instructions for special handling conditions shall be printed.

4.2.16 Blank media

Blank media shall be labelled according to accepted standards currently in place. All blank media shall be defined as media prepared for usage without containing user data. The labelling shall be required only for the primary side of the media to be used and required to be updated when users are allowed access to the media.

5 Labelling, material and information on the ODC labelling area

5.1 Label location

A label to write information on the ODC shall be applied to the recessed area provided for that purpose. The label shall be self-adhesive and shall fit the recessed area. Labelling manufacturers shall refer to related ODC interchange standards for exact dimensions of the label recessed area on the ODC. They shall design the physical dimensions of the label to fit accordingly. Positioning the label on other areas of the cartridge may impair the disk functioning. No labels of any type shall be placed on the OD (media). The user may decide to affix to the ODC a printed label that carries only a bar code. Its physical size, and other characteristics discussed in this Clause, shall be followed, e.g., it shall fit inside the physical dimensions of the recessed area of the ODC.

5.2 Label marking

The surface of the label shall accept writing from a ball point pen or felt-tip marker. Pens or markers with water-based ink or a pencil shall not be used. As an alternative, the information may be applied to an area of the ODC with a surface treatment to accept hand written matter.

5.3 Label thickness

The thickness of a label and its adhesive shall not be greater than the depth of the ODCs recessed label area.

5.4 User Identification

The organization or user identification may be printed on the ODC label.

5.5 Initialization, certification and format

Any certification or formatting done by the user may be written on the label in accordance with Annex A.

Annex A
(normative)

Examples and formats of information on the ODC shipping packages, the ODC printed areas and the ODC labels

The examples and formats of information about some of the items specified on Clause 5 are specified in Table A.1.

Table A.1 — Scheme to place information on ODC shipping packages, the ODC printed areas and the ODC labels

Item	Example	Possible content
Product/media type	R/W	R/W, WORM, WO, ROM, P-ROM
Dimensions (Nominal media size)	130 mm	90 mm, 130 mm, 256 mm, 300 mm, 356 mm
Standard designation	ISO 10090	ECMA, ISO/IEC, ISO
Sector size	1024 B	512 B, 1024 B, 2048 B
Sides	Double-sided	Single or double-sided
Nominal capacity/disk	2,6 GB	128 MB ; 650 MB ; 1,3 GB ; 2,6 GB
Disk formatted	Yes	Yes, No
Disk certified	Yes	Yes, No
Disk formatted with a high level format	Unix	No, DOS, OS/2, Unix