

Storage, transportation and maintenance of media for use in data processing and information storage —

**Part 5: Recommendations for 12.7 mm
magnetic tape cartridges for data
interchange, recording at 1491 data
bytes per millimetre on 18 tracks**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Information Systems Technology Standards Policy Committee (IST/-) to Technical Committee IST/4, upon which the following bodies were represented:

- British Computer Society
- British Photographic Association
- EEA (the Association of Electronics, Telecommunications and Business Equipment Industries)
- HM Customs and Excise
- Her Majesty’s Stationery Office
- Institute of Administrative Management
- Institution of Electrical Engineers

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Foreword

This Part of BS 4783 has been prepared under the direction of the Information Systems Technology Standards Policy Committee. It has been developed from advice and information provided by Government computing departments, magnetic media suppliers and manufacturers, users and specialist tape maintenance organizations.

The use of high-grade materials and modern production techniques, that include rigorous testing and inspection, ensures that magnetic tape cartridges are manufactured to exacting standards. To continue to benefit from the care taken during manufacture, and to ensure optimum performance from a product during its life, the user should exercise care, and this British Standard gives appropriate advice.

Manufacturers' publications often cover some of the advice given herein and, where available, should be read in conjunction with this standard.

The following Parts of BS 4783 have already been published:

- *Part 1: Recommendations for disk packs, storage modules and disk cartridges;*
- *Part 2: Recommendations for magnetic tape on open spools;*
- *Part 3: Recommendations for flexible disk cartridges;*
- *Part 4: Recommendations for magnetic tape cartridges and cassettes.*

The following British Standards are relevant to 12.7 mm magnetic tape cartridges.

BS 6266, *Code of practice for fire protection for electronic data processing installations.*

BS 7062, *Guide to construction and use of 12.7 mm (0.5 in) wide magnetic tape cartridges for data interchange, recording at 1491 data bytes per millimetre (37871 data bytes per inch), on 18 tracks.*

BS 7083, *Recommendations for the accommodation and operating environment of computer equipment.*

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of BS 4783 provides recommendations on the care and maintenance of 12.7 mm magnetic tape cartridges. It includes recommendations for storage, handling, transportation, inspection, cleaning, maintenance and fault identification.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this Part of BS 4783 the following definitions apply.

2.1

base film

substrate material of the tape that supports the coating

2.2

cartridge

container holding a supply reel of magnetic tape with an attached leader block

2.3

cartridge cleaner

device designed to clean both surfaces of the tape within the cartridge

2.4

cartridge evaluator

device that evaluates the physical and magnetic quality of the tape within the cartridge

2.5

coating

recording layer of a tape consisting of oxide particles held in a binder that is applied to the base film

2.6

contamination

foreign deposits that may lead to degradation of performance

2.7

error

failure to read correctly a bit of information

2.8

extreme environment

environmental conditions outside the limits recommended in this Part of BS 4783

2.9

library

designated storage area for media and associated equipment

2.10

magnetic tape

tape that will accept and retain the magnetic signals intended for input, output and storage purposes on computer and associated equipment

2.11

retries

a number of re-read attempts determined by the type of system

2.12

tape transport

mechanism that extracts tape from the cartridge, moves it across magnetic heads at a controlled speed and then feeds it into another cartridge

2.13

write inhibit

mechanism with a rotatable or slidable element that displays a visible mark, e.g. a white spot, when write is inhibited

3 Tape library

3.1 General

Cartridges should be suitably stored, e.g. in specially designed racks or storage boxes, and their use should be monitored by means of a central facility.

Stationery should not be stored within the library. Cardboard containers should not enter the library.

Chemicals and other materials stored in the library should be restricted to those required for day-to-day maintenance.

NOTE Also see the recommendations for storage environment in 5.1.

3.2 Personnel

Personnel should be trained in their responsibility for the condition, care and handling of cartridges in order to improve and maintain the proper functioning of any library. Ideally, an individual should be designated as the Librarian with overall responsibility for day-to-day maintenance and control.

3.3 Equipment

The maintenance equipment available at a computer installation will be inevitably governed by the library size and comparative cost effectiveness. Site policy should clearly indicate who is responsible for the provision of resources and equipment such as cartridge evaluators and cleaners, consumables (cleaning cartridges), e.g. the equipment engineers or operational staff.