

Specification for

Punched cards —

Part 1: Unpunched paper cards

Co-operating organizations

The Data Processing Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Aslib
- British Computer Society Ltd.*
- British Electrical and Allied Manufacturers' Association
- British Federation of Master Printers
- British Paper and Board Makers' Association (Incorporated)*
- British Railways Board
- British Telecommunication Research Ltd.
- Business Equipment Trade Association*
- Civil Service Department*
- Committee of London Clearing Bankers
- Data Processing Management Association
- Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales
- Electronic Engineering Association*
- Engineering Equipment Users' Association
- Government Communications Headquarters
- Institute of Chartered Accountants in England and Wales
- Institute of Cost and Works Accountants
- Institute of Municipal Treasurers and Accountants (Incorporated)*
- Institution of Electrical Engineers
- Institution of Mechanical Engineers
- London Transport Executive
- Machine Tool Trades Association*
- Ministry of Technology
- Ministry of Technology, Computer Advisory Service,*
- Technical Support Unit
- National Coal Board
- National Computing Centre Ltd.
- National Research and Development Corporation
- Post Office*
- Radio and Electronic Component Manufacturers' Federation
- Society of British Aerospace Companies
- Technical Section of the British Paper and Board Makers' Association*

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- H.M. Stationery Office
- Scientific Instrument Manufacturers' Association of Great Britain

This British Standard, having been approved by the Data Processing Industry Standards Committee, was published under the authority of the Executive Board on 23 November 1970

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The following BSI reference relates to the work on this standard:
Committee reference DPE/2

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Foreword

This Standard makes reference to the following British Standards:

BS 308, *Engineering drawing practice*.

BS 3431, *Conditioning of paper and board test samples*.

This British Standard has been prepared under the authority of the Data Processing Industry Standards Committee and is based on and fully in conformity with ISO 1681¹⁾, prepared by the International Organization for Standardization (ISO).

Punched cards have been one of the main media for input and output in connection with computer installations and are still widely used for the recording, storage and processing of data. The British Standards relating to punched cards have been grouped under the heading BS 4636, "*Punched cards*", which is issued in Parts, as follows.

This Part, Part 1, "Unpunched paper cards", specifies the properties of the card material, the methods of testing the material for those properties and the dimensions of the unpunched card.

Part 2, "Dimensions and location of rectangular holes in 12-row, 80-column punched cards", specifies the dimensions and location in these cards, at the time of punching, of the code holes whose patterns represent characters.

Part 3, "Representation of 7-bit codes and of certain numeric sets on 12-row punched cards", specifies the correspondence between particular patterns of code holes in these cards and the bit patterns by which characters are encoded when 7-bit codes are used. It also specifies the correspondence between particular patterns of code holes in these cards and the numerals in certain numeric sets.

Part 4, "Representation of 8-bit codes on 12-row punched cards", specifies the correspondence between particular patterns of code holes in these cards and the bit patterns by which characters are encoded when 8-bit codes are used.

As both national and international discussions proceed, it is foreseen that this series of standards may be extended with the addition of, for example, edge punched cards and stub cards.

The successful interchange of data by means of punched cards depends, to a great extent, on the accuracy with which the holes are punched in the card, but this is directly influenced by the behaviour of the paper material under varying ambient conditions. The consideration of the effects of these changes on the card has resulted in an exacting specification for both the paper material and the dimensions to ensure reasonable card life and satisfactory interchange of data. The dimensions given in this Part of the standard are those which control the shape and thickness of the card.

TAPPI²⁾ tests are the traditional test methods applied in punched card manufacture and are at the moment the subject of study in ISO and BSI. It is not intended that the test methods invoked in this standard should change but, as and when British Standard specifications are published with identical methods, or alternative methods approved by the data processing industry, this standard will be reviewed.

A special note is included within the scope, making reference to the metric conversion of imperial dimensions. **On a world basis the only true definition of punched card dimensions is in imperial units**, and wherever it is required to express these measurements in metric form for the purpose of, for example, production testing, etc., it would be advisable that conversion be carried to such lengths as is necessary to avoid distortion of the imperial dimensions and tolerances.

¹⁾ ISO 1681, "*Specifications for unpunched paper cards*".

²⁾ Technical Association of the Pulp and Paper Industry (USA).

The attention of the user is drawn to Appendix A, devoted to the storage and use of punched cards. While cards are manufactured under tightly controlled conditions, efficiency in use can be seriously impaired by lack of attention to the need for care in storage and handling. It is not possible to specify mandatory clauses in these matters which can be applied under all operating conditions, but adherence to the principles contained in Appendix A will assist in ensuring successful usage.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10 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.

