

# INTERNATIONAL STANDARD

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## **Information and documentation — Requirements for binding materials and methods used in the manufacture of books**

*Information et documentation — Prescriptions pour les matériaux  
et méthodes de reliure utilisés dans la fabrication des livres*



Reference number  
ISO 11800:1998(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.

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.

International Standard ISO 11800 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 10, *Physical keeping of documents*.

Annexes A and B form an integral part of this International Standard. Annexes C and D are for information only.

## Introduction

The usability and durability of books held in libraries and archives is a matter of natural concern to the public. Private book buyers and readers have a similar interest in such lasting qualities of the books they purchase. Books, in principle, should remain in good physical condition for as long as their contents are worth preserving. They should be manufactured to meet the requirements of their intended use.

Industrialized manufacturing methods, unfortunately, have not improved the quality of the average book. An increasing percentage of recently produced books tend to fall apart prematurely. Tests in library laboratories and simple observation show that some of the core problems lie in the binding materials and binding methods. Libraries and archives around the world are concerned about the consequences. It is envisaged that, more and more, recently acquired books will either fall apart before they are withdrawn from the collection for textual reasons, or they will have to be replaced or rebound. In either case, library and archival systems worldwide are likely to face enormous expenses in the future if the quality of the average book is not improved. This, for many public, academic and special libraries, could be an incentive to become more selective in their acquisitions and to buy fewer new titles.

This International Standard addresses publishers and book manufacturers. It also addresses acquisition librarians and archivists with a view to informing library and archival staff about the good physical properties they should expect in the books they acquire for public use. The purpose of this International Standard is to provide a means of specifying manufacturing methods and binding materials to be used for the production and making of quality books.

Good quality book bindings should be capable of withstanding ordinary use for a satisfactory period of time without significant breakdown of the binding structure. The properties of a durable book explicitly include the permanency of all the component parts, including its paper, the secure attachment of its leaves together, preferably by sewing, to form the book block, the secure attachment of the book block to its protective cover, and the resistance of the cover to the effects of abrasion, soiling and exposure to light. The concept of durability includes the attribute of flexibility, i.e. the ability of a book to open well without stress under normal reading conditions.

For heavy wear, long-term keeping and eventually rebinding of the book block, adhesive binding is not considered by this International Standard to be as recommendable as sewn binding. For that reason, adhesive binding is not an integral part of this International Standard. Yet adhesive-bound books can be manufactured to meet such simple requirements as the secure attachment of their leaves together to form the book block, the secure attachment of the book block to its protective cover and some resistance of both paper and cover materials to the effects of wear and deterioration. Guidelines for the manufacture of well-produced adhesive-bound books, therefore, are included as an annex to this International Standard. The requirements for adhesive binding include the minimum requirements for acceptable bookbinding under circumstances mentioned in the scope of this International Standard, described in clause C.1 of annex C, and further explained in annex D. For the sake of expediency, the numbering scheme applied in annexes A and B of this International Standard is repeated in the Guidelines for adhesive-bound books in annex C.

Of concern regarding both sewn and adhesive binding are those methods and materials that affect the ease with which a volume can be rebound or repaired. With this in view, and to ensure that books will open easily when in use, this International Standard also includes minimum requirements for the size of the inner margins which must be respected during the imposition of the text matter.

# Information and documentation — Requirements for binding materials and methods used in the manufacture of books

## 1 Scope

This International Standard specifies manufacturing methods and materials that will result in durable hard cover and soft cover binding for books manufactured in commercial quantities. It does not apply to hand bookbinding, individual casing or binding of archival matter. Nor does it apply to fine binding which does not serve its normal purpose of primarily protecting a book block (such as sculptural art formed around book-like material).

This International Standard has two normative annexes and one annex with a set of guidelines, each specifying the requirements for its special category of binding.

Category A binding (annex A) is intended

- for books of permanent retention;
- for books produced with a view to heavy use over prolonged periods, e.g. reference works;
- for valuable volumes requiring lasting protection;
- for items having lasting aesthetic value.

Category B binding (annex B) is intended

- for books and periodicals in soft cover and of permanent retention;
- for books and periodicals produced with a view to heavy use over prolonged periods;
- for valuable volumes requiring lasting protection;
- for items having aesthetic value.

Guidelines that specify recommended manufacturing methods and materials for soft cover and hard cover adhesive-bound books are given in annex C. Annex D contains information regarding the fields of application suggested for category A and B bindings and for adhesive-bound books.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 302:1981, *Pulps — Determination of Kappa number*.

ISO 534:1988, *Paper and board — Determination of thickness and apparent bulk density or apparent sheet density*.

ISO 536:1995, *Paper and board — Determination of grammage*.

ISO 2758:1983, *Paper — Determination of bursting strength*.

ISO 2835:1974, *Prints and printing inks — Assessment of light fastness*.

ISO 4046:1978, *Paper, board, pulp and related terms — Vocabulary*.

ISO 5081:1977, *Textiles — Woven fabrics — Determination of breaking strength and elongation (Strip method)*<sup>1)</sup>.

ISO 5127-2:1983, *Documentation and information — Vocabulary — Part 2: Traditional documents*.

ISO 5626:1993, *Paper — Determination of folding endurance*.

ISO 6588:1981, *Paper, board and pulps — Determination of pH of aqueous extracts*.

ISO 9665:1993, *Adhesives — Animal glues — Methods for sampling and testing*.

ISO 9706:1994, *Information and documentation — Paper for documents — Requirements for permanence*.

ANSI L29.1-1977 (R1984), *Fabrics for Book Covers*<sup>2)</sup>.

### 3 Definitions

For the purposes of this International Standard, the following definitions apply.

#### 3.1

##### **adhesive binding**

type of binding, hard cover or soft cover, in which the signatures are milled and the separate sheets glued together by means of an adhesive

#### 3.2

##### **adhesive line**

width of adhesive applied to a material prior to attaching it to another material

#### 3.3

##### **alkaline buffered paper**

paper with a pH equal to or higher than 7,0, and containing a compound (e.g. calcium carbonate) at a level sufficient to neutralize acid generated from degradation of the paper, from adjacent materials, or from atmospheric pollution

#### 3.4

##### **animal glue**

natural glue prepared by adding glycerine to high-quality hide glue

#### 3.5

##### **bind**

to fasten sheets together and to attach them to protective covers, which may be made of a variety of materials, e.g. paper, board, cloth

#### 3.6

##### **binder's board**

rigid, solid board, made from a base stock of paper pulp, and of a grammage of 225 g/m<sup>2</sup> or more

1) ASTM D 5035-90, *Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Force)* is technically identical to ISO 5081.

2) May be obtained from ANSI at the address: 11 West 42nd Street, 13th floor, New York, N.Y. 10036, USA.