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Information and documentation - Paper for documents - Requirements for permanence (ISO 9706:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/25

Rozpracovaná prekladom.

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EN ISO 9706

June 2025

ICS 01.140.40; 85.060

Supersedes EN ISO 9706:1998

English Version

**Information and documentation - Paper for documents -
Requirements for permanence (ISO 9706:2025)**

Information et documentation - Papier pour
documents - Exigences relatives à la permanence (ISO
9706:2025)

Information und Dokumentation - Papier für Schriftgut
und Druckerzeugnisse - Voraussetzungen für die
Alterungsbeständigkeit (ISO 9706:2025)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 9706:2025) has been prepared by Technical Committee ISO/TC 46 "Information and documentation" in collaboration with Technical Committee CEN/TC 172 "Pulp, paper and board" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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

This document supersedes EN ISO 9706:1998.

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Endorsement notice

The text of ISO 9706:2025 has been approved by CEN as EN ISO 9706:2025 without any modification.



International Standard

ISO 9706

Information and documentation — Paper for documents — Requirements for permanence

*Information et documentation — Papier pour documents —
Exigences relatives à la permanence*

**Second edition
2025-05**

ISO 9706:2025(en)



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ISO 9706:2025(en)**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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 10, *Requirements for document storage and conditions for preservation*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 9706:1994), which has been technically revised.

The main changes are as follows:

- the Introduction has been modified and [Annex D](#) has been added to emphasize the relationship and differences between existing standards regarding the requirements of paper for different applications: permanent and durable paper for documents which are intended to be used frequently and kept permanently, and for stable paper used for general graphic applications;
- the normative references have been updated;
- the term "document" has been replaced by an existing definition in the terminology database of ISO.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 9706:2025(en)**Introduction**

Librarians and archivists have found that paper documents made as recently as the second half of the 20th century show serious deterioration under typical library and archive storage conditions. Contrary to this observation, the past 1 500 years of paper use show that papers consisting mostly of cellulose have considerable permanence and durability.

Research indicates that the deterioration is due to the presence of cellulose-degrading compounds in the paper furnish and materials incorporated in the paper during manufacture, e.g. acidic materials such as rosin-alum size.

The intention of this document is to define a permanent paper that is most suitable for indefinite storage, e.g. in archives, libraries, and museums. Such paper is to be used for books as well as for files, documents and other records that are to be stored permanently for legal, cultural policy or other reasons. For this purpose, this document provides a method for specifying paper which, according to the present state of knowledge, has a high degree of permanence. Paper fulfilling the requirement of this document shows no or only slight changes in optical and mechanical properties which have an influence on readability of recording (printing, writing or copying) and handling when stored for a long period in a protected environment. This purpose requires papers eligible for permanent use to be free of oxidizable matter that causes undesirable discolouration, e.g. lignin or recycled material of uncertain composition, and/or substances that have a negative impact on mechanical strength, for example any type of acid sizing or other acid-producing substances.

This document is based on a small number of quantitative tests for which limiting values have been specified. Paper classified in accordance with this document shall show measurement results within the specified limits for all prescribed tests.

The limits are chosen so that paper conforming to the specifications of this document can be produced in large quantities at reasonable prices. This permits printing firms, publishing companies, public administration, and others to use this paper for all types of written and printed matter, files and records, or publications which for any reason are to be preserved indefinitely in libraries, archives or any other entities concerned in this matter.

There are two standards, apart from this document, regarding different applications of paper:

- ISO 11108, which describes archival paper with the same permanence requirements as for this document and with high durability (able to withstand the effects of wear and tear during use).
- ISO 20494, which describes paper for general graphic applications, not intended for permanent storage, including newspapers, magazines, catalogues, books, office printouts and copies, where changes in optical properties over time can be tolerated.

This document and ISO 11108 differ from ISO 20494; they are not comparable either in approach or in method. In ISO 20494, the decrease in mechanical-physical strength that a paper suffers when subjected to moist heat treatment for up to 12 days is the basis for defining service life despite any optical changes.

Conversely, this document and ISO 11108 are based on the fact that acid-catalysed hydrolysis is the major cause of the degradation of cellulose, the substance that provides strength to paper, and that this acid hydrolysis is strongly inhibited if an alkaline buffer and no or little acid-forming substances are present in the paper. Furthermore, this document and ISO 11108 define a resistance to oxidation, which requires the paper to have a Kappa number of less than 5, corresponding to about 10 g of lignin per kg of paper. This document and ISO 11108 therefore specify a paper that is expected to remain substantially unchanged over time, whereas ISO 20494 accepts the loss of brightness or yellowing. Further description of the relationship between these standards can be found in [Annex D](#).

Both this document and ISO 11108 evaluate the permanence properties of the paper. Note, however, that a document is considered permanent if it includes both a permanent paper substrate and a permanent recording method (i.e. writing, printing and copying). Permanence and durability of recording materials are tested according to ISO 11798. Cultural policy and, if applicable, legal mandates require archives, libraries, museums, and other collections to store written material and printed matter of this kind in perpetuity, to

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preserve it and to make it available for use as an object of study or as authentic evidence of rights in the long term. For this reason, printing firms, publishing companies, agencies of public administration, business and industry, and any place where other written materials are created that are eligible for permanent storage, should ensure that the requirements of this document (mechanical strength, alkali reserve, oxidation resistance and pH value, measured in each case on the paper as produced) are met.

A reasoned explanation for the exclusion of some common paper testing methods is given in [Annex C](#).

This document may be used as a stand-alone specification. It may also be incorporated as a component in other specifications used in trade or as national or international standards for more specific purposes.

Information and documentation — Paper for documents — Requirements for permanence

1 Scope

This document specifies the requirements for permanent paper intended for documents. It is applicable to unprinted papers. It is not applicable to boards.

NOTE 1 The terms paper and board are defined in ISO 4046-3.

This document is not intended for judging the permanence of papers stored under hostile conditions, such as high humidity that can promote microbiological attack, excessive heat, radiation (light or other), high levels of atmospheric pollutants, or the influence of water.

NOTE 2 For information on International Standards on paper permanence (ISO 9706), on archival paper permanence and durability (ISO 11108), and on paper stability for general graphic applications (ISO 20494), refer to [Annex D](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 186, *Paper and board — Sampling to determine average quality*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 302, *Pulps — Determination of Kappa number*

ISO 536, *Paper and board — Determination of grammage*

ISO 1974, *Paper — Determination of tearing resistance — Elmendorf method*

ISO 6588-1, *Paper, board and pulps — Determination of pH of aqueous extracts — Part 1: Cold extraction*

ISO 10716, *Paper and board — Determination of alkali reserve*

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