

INTERNATIONAL STANDARD

ISO
8226-1

Second edition
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Paper and board — Measurement of hygroexpansivity —

Part 1:

Hygroexpansivity up to a maximum relative
humidity of 68 %

Papiers et cartons — Détermination de la dilatation à l'humidité —

*Partie 1: Dilatation à l'humidité jusqu'à une humidité relative maximale de
68 %*



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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 8226-1 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*.

This second edition cancels and replaces the first edition (ISO 8226-1:1985), which has been technically revised.

ISO 8226 consists of the following parts, under the general title *Paper and board — Measurement of hygroexpansivity*:

- *Part 1: Hygroexpansivity up to a maximum relative humidity of 68 %*
- *Part 2: Hygroexpansivity up to a maximum relative humidity of 86 %*

Annex A forms an integral part of this part of ISO 8226. Annex B is for information only.

Introduction

Knowledge of the dimensional changes in paper and board to be expected when the ambient humidity changes is essential for accurate control of printing and similar processes. The change in dimensions, or hygroexpansivity, is due to stress relaxation of the constituent fibres and swelling or contraction of the fibres caused respectively by absorption or desorption of water. The proportion of the two mechanisms causing hygroexpansivity depends upon the upper limit of relative humidity. For the purposes of this part of ISO 8226, an upper limit of 68 % relative humidity is imposed to minimize the effects of stress relaxation on the hygroexpansivity.

Part 2 of this International Standard specifies a method for the determination of hygroexpansivity up to a maximum relative humidity of 86 %, a value at which stress relaxation may have a significant effect on hygroexpansivity.