
Paper and board — Testing of cores —

Part 3:

Determination of moisture content using the
oven drying method

Papier et carton — Essais des mandrins —

Partie 3: Détermination de la teneur en eau par séchage à l'étuve



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 11093-3 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 3, *Dimensions and grammage of paper, board and pulp products*.

ISO 11093 consists of the following parts, under the general title *Paper and board — Testing of cores*:

- *Part 1: Sampling*
- *Part 2: Conditioning of test samples*
- *Part 3: Determination of moisture content using the oven drying method*
- *Part 4: Dimensional measurements*
- *Part 5: Determination of characteristics of concentric rotation*
- *Part 8: Machine test for dynamic cleavage*
- *Part 9: Determination of flat crush resistance*

This is a preview of "ISO 11093-3:1994". [Click here to purchase the full version from the ANSI store.](#)

Paper and board — Testing of cores —

Part 3:

Determination of moisture content using the oven drying method

1 Scope

This part of ISO 11093 specifies an oven method for determining the moisture content of wound paper and board cores at the time the sample is taken.

This method can be taken for all types of core from which water is the main volatile component to escape at the specified drying temperature.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 11093. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11093 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 11093-1:1994, *Paper and board — Testing of cores — Part 1: Sampling*.

3 Definitions

For the purposes of this part of ISO 11093, the following definitions apply.

3.1 moisture content, u : Quantity indicating the amount of water contained in a core.

The moisture content, u , expressed as a percentage by mass, is related to the moist weight m_u and is the ratio multiplied by 100 of the difference (moist weight m_u — dry weight m_o) to the moist weight m_u .

3.2 dry weight, m_o : Mass of the test piece after drying to constant mass.

3.3 constant mass: Constant mass is deemed to have been reached when two successive weighings show a difference of no more than 0,1 % of the specimen mass m_u .

The time between successive weighings shall be at least 7 hours for each 4 mm of wall thickness.

4 Principle

Weighing of the test piece at the time of sampling, and again after drying to constant mass.

5 Apparatus

5.1 Balance, having an accuracy of 0,05 % of the mass to be weighed, or better.

5.2 Test piece containers, for the transport and weighing of test pieces, which shall be water-vapour proof and made in a light-weight construction from a material not subject to change under the conditions of test.

5.3 Oven, capable of being maintained at 105 °C \pm 2 °C.

6 Sampling

Sampling shall be performed in accordance with ISO 11093-1.

Care shall be taken that the test pieces are not contaminated during the sampling process and that their moisture content is not altered.