
**Wood-based panels — Determination of
moisture content**

Panneaux à base de bois — Détermination de l'humidité

STANDARDSISO.COM : Click to view the full PDF of ISO 16979:2003



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

STANDARDSISO.COM : Click to view the full PDF of ISO 16979:2003

© ISO 2003

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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

ISO 16979 was prepared by Technical Committee ISO/TC 89, *Wood-based panels*.

STANDARDSISO.COM : Click to view the full PDF of ISO 16979:2003

Introduction

This International Standard is based on European Standard EN 322. It cancels and replaces ISO 9425:1989 which has been extended to include provisions for sampling and cutting of test pieces.

STANDARDSISO.COM : Click to view the full PDF of ISO 16979:2003

Wood-based panels — Determination of moisture content

1 Scope

This International Standard specifies a method for determining the moisture content of wood-based panels.

2 Normative references

The following referenced documents are indispensable for the application 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 16999, *Wood-based panels — Sampling and cutting of test pieces*

3 Principle

Determination, by weighing, of the loss of mass of each test piece between its state at the time of sampling and its state after drying to constant mass at (103 ± 2) °C, and calculation of this loss of mass as a percentage of the mass of the test piece after drying.

4 Apparatus

- 4.1 **Balance**, with a scale interval of 0,01 g.
- 4.2 **Drying oven**, ventilated, capable of being controlled at (103 ± 2) °C.
- 4.3 **Desiccator**, containing silica gel, to maintain the air as close as possible to the absolutely dry condition.

5 Test pieces

5.1 Sampling and cutting

Sampling and cutting of the test pieces shall be carried out in accordance with ISO 16999. Test pieces shall cover the full thickness of the panel.

5.2 Mass and dimensions

The test piece shall have a minimum mass of 20 g. The shape and size of the test piece are unimportant. The test pieces shall be free from loose splinters and sawdust.

6 Procedure

6.1 Weighing before drying

Weigh each test piece in the as-sampled state, to an accuracy of 0,05 % of the mass of the test piece.

This initial weighing shall be carried out immediately after sampling. Where this is impossible, precautions shall be taken to avoid changes in the moisture content of the test piece after sampling.

6.2 Drying

Place the test pieces in the drying oven (4.2) at a temperature of (103 ± 2) °C until constant mass has been reached.

Constant mass is considered to be reached when the results of two successive weighing operations, carried out at a minimum interval of 6 h, do not differ by more than 0,1 % of the mass of the test pieces.

6.3 Weighing after drying

After the test pieces have been cooled to approximately room temperature in the desiccator (4.3), weigh each test piece to an accuracy of 0,05 % of the mass of the test piece, rapidly enough to avoid an increase in moisture content.

7 Expression of results

Calculate the moisture content, H , of each test piece, as a percentage by mass to the nearest 0,1 %, in accordance with the following equation:

$$H = \frac{m_0 - m_1}{m_1} \times 100$$

where

m_0 is the initial mass of the test piece, in grams (g);

m_1 is the mass of the test piece after drying, in grams (g).

8 Estimation of moisture content of a panel

The moisture content of a panel shall be obtained by calculating the arithmetic mean of the moisture contents of all the test pieces taken from the same panel and shall be expressed as a percentage to one decimal place.