INTERNATIONAL STANDARD

ISO 16985

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Wood-based panels — Determination of dimensional changes associated with changes in relative humidity

Panneaux à base de bois — Détermination des variations dimensionnelles sous l'influence de variations de l'humidité relative

Reference number
ISO 16985:2003(E)

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Foreword

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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 16985 was prepared by Technical Committee ISO/TC 89, *Wood-based panels.* ISO 16985 is based on European Standard EN 318.

Wood-based panels — Determination of dimensional changes associated with changes in relative humidity

1 Scope

This International Standard specifies a method for the determination of dimensional changes in wood-based panels, due to variations in relative humidity.

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 16979, *Wood-based panels — Determination of moisture content*

ISO 16999, *Wood-based panels — Sampling and cutting of test pieces*

3 Principle

The equilibrium moisture content of panel products is dependent on the history of moisture change. Higher equilibrium moisture contents for any one relative humidity are achieved in desorption compared with adsorption; this gives rise to a hysteresis effect.

In order to obtain the true dimensional change, this is measured between 65 % and 85 % relative humidity in adsorption and between 65 % and 30 % relative humidity in desorption.

4 Apparatus

4.1 Balance, as described in ISO 16979.

4.2 Instruments for measuring length and thickness, with an accuracy of ± 0,01 mm. An example of length-measuring equipment is shown in Figure 1.

4.3 Calibration bar, corrosion-resistant metal bar of sufficient length and shape to calibrate the length-measuring equipment. The length of the calibration bar shall be known to within 0,01 mm.

4.4 Climate chamber(s), capable of maintaining the required temperature at ± 1 °C and relative humidity at ± 3 %.