

# INTERNATIONAL STANDARD



823

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Particle boards – Determination of moisture content

*Panneaux de particules – Détermination de l'humidité*

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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 151 has reviewed ISO Recommendation R 823 and found it technically suitable for transformation. International Standard ISO 823 therefore replaces ISO Recommendation R 823-1968 to which it is technically identical.

ISO Recommendation R 823 was approved by the Member Bodies of the following countries:

Austria	Germany	Portugal
Belgium	India	Romania
Canada	Ireland	South Africa, Rep. of
Chile	Israel	Spain
Colombia	Korea, Rep. of	Sweden
Czechoslovakia	Netherlands	Switzerland
Egypt, Arab Rep of	New Zealand	United Kingdom
Finland	Norway	U.S.S.R.
France	Poland	Yugoslavia

No Member Body expressed disapproval of the Recommendation.

The Member Body of the following country disapproved the transformation of ISO/R 823 into an International Standard.

Norway

# Particle boards – Determination of moisture content

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method of determining the moisture content of particle boards, defined in ISO 820.

## 2 REFERENCES

ISO 820, *Particle boards – Definition and classification*.

ISO ..., *Particle boards – Sampling, cutting and inspection*.<sup>1)</sup>

## 3 PRINCIPLE

Determination, by weighing, of the loss of mass of a test piece between its state at the time of sampling and its state after drying to constant mass, and relation of this loss to the mass of the test piece after drying.

## 4 APPARATUS

4.1 Balance, accurate to 0,01 g.

4.2 Air convection drying oven, capable of being controlled at  $103 \pm 2$  °C.

## 5 SAMPLING AND TEST PIECES

5.1 Sampling and cutting of the test pieces shall be carried out in accordance with ISO ...

5.2 The test may be carried out on test pieces of any shape and dimensions with a minimum area of 25 cm<sup>2</sup>.

## 6 PROCEDURE

6.1 Weigh each test piece in the same state as at the time of sampling (see note below), to an accuracy of 0,01 g.

6.2 Dry each test piece at a temperature of  $103 \pm 2$  °C to constant mass.<sup>2)</sup>

6.3 After cooling in a dry atmosphere, weigh it with the same accuracy as before, rapidly enough to avoid an increase of moisture content greater than 0,1 %.

NOTE – The first weighing should be carried out immediately after sampling. If this is impossible, all precautions shall be taken to avoid variations of the moisture content during the time from sampling to weighing.

## 7 EXPRESSION OF RESULTS

7.1 Calculate the percentage moisture content,  $H$ , of each test piece to the nearest 0,1 % using the following formula :

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

where

$m_0$  is the mass, in grams, of the test piece at the time of sampling;

$m_1$  is the mass, in grams, of the test piece after drying.

7.2 The moisture content of a board or of a batch of particle boards is equal to the mean arithmetical value of the moisture contents of all the relevant test pieces. It shall be stated to the nearest 0,1 %.

## 8 TEST REPORT

The test report shall contain the following particulars :

- the type of board as defined in ISO 820, and all necessary details to identify the boards;
- the results expressed as stated in clause 7;
- reference to this International Standard.

1) In preparation.

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