

# INTERNATIONAL STANDARD



# 822

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

## Particle boards — Determination of density

*Panneaux de particules — Détermination de la masse volumique*

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**Descriptors** : building boards, particle boards, tests, measurement, density (mass/volume), test specimens.

Price based on 2 pages

## 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 822 and found it technically suitable for transformation. International Standard ISO 822 therefore replaces ISO Recommendation R 822-1968 to which it is technically identical.

ISO Recommendation R 822 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 822 into an International Standard :

Norway

# Particle boards – Determination of density

## 1 SCOPE AND FIELD OF APPLICATION

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

## 2 REFERENCES

- ISO 820, *Particle boards – Definition and classification.*
- ISO 821, *Particle boards – Determination of dimensions of test pieces.*
- ISO 823, *Particle boards – Determination of moisture content.*
- ISO ..., *Particle boards – Sampling, cutting and inspection.*<sup>1)</sup>

## 3 PRINCIPLE

Determination of the ratio of the mass, in grams, of each test piece to its volume in cubic centimetres.

## 4 APPARATUS

See ISO 821.

## 5 SAMPLING AND TEST PIECES

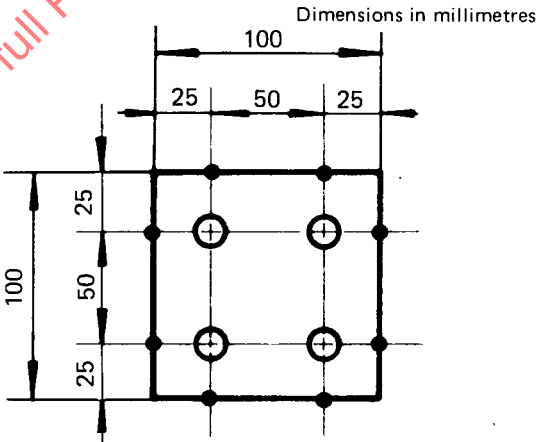
- 5.1 Sampling and cutting of the test pieces shall be carried out in accordance with ISO ...
- 5.2 The test pieces shall be square in shape, with sides measuring 100 mm.

NOTE – In the case of extruded tubular boards, the dimension of the test pieces shall be such that they are representative of the whole board.

- 5.3 The test pieces shall be conditioned to constant mass<sup>2)</sup> in an atmosphere of relative humidity 65 ± 5 % and temperature 20 ± 2 °C.

## 6 PROCEDURE

- 6.1 Weigh each test piece to an accuracy of 0,1 g.
- 6.2 Measure the dimensions of each test piece in accordance with ISO 821 as follows :
  - a) the thickness at four different points, shown by the circles in the figure;
  - b) the dimensions of the sides, parallel to the edges, between the two respective points shown in the figure.



- 6.3 Calculate the volume of the test piece to the nearest 0,1 cm<sup>3</sup>.

## 7 EXPRESSION OF RESULTS

- 7.1 Calculate the density,  $\rho$ , of each test piece, in grams per cubic centimetre to the nearest 0,01 g/cm<sup>3</sup>, using the following formula.

$$\rho = \frac{m}{V}$$

where

- $m$  is the mass, in grams, of the test piece;
- $V$  is the volume in cubic centimetres, of the test piece.

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 24 h, do not differ by more than 0,1 % of the mass of the test piece.