INTERNATIONAL STANDARD 769

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

Fibre building boards — Hard and medium boards — Determination of water absorption and of swelling in thickness after immersion in water

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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.

International Standard ISO 769 was drawn up by Technical Committee ISO/TC 89, *Fibre building boards.*

This International Standard is the revision of ISO Recommendation R 769-1968. As the Members of ISO/TC 89 considered the amendments made to that ISO Recommendation to be of minor importance, International Standard ISO 769 was submitted direct to the ISO Council under the abbreviated procedure (ISO Directives, Clause F.7.1).

This International Standard cancels and replaces ISO Recommendation R 769-1968, which was approved in October 1965 by the Member Bodies of the following countries :

Argentina
Australia
Austria
Belgium
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Canada
Czechoslovakia
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Finland
France
Germany
Hungary
India
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Israel
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New Zealand
Poland
Portugal
Romania
South Africa, Rep. of
Spain
Sweden
Switzerland
United Kingdom
U.S.S.R.
Yugoslavia

No Member Body expressed disapproval of the document.

Printed in Switzerland

Fibre building boards — Hard and medium boards — Determination of water absorption and of swelling in thickness after immersion in water

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method of determining the water absorption and swelling in thickness of hard and medium fibre building boards, defined in ISO/R 818.

2 REFERENCES

ISO 766, *Fibre building boards — Determination of dimensions of test pieces.*

ISO/R 818, *Fibre building boards — Definition — Classification.*

ISO . . ., *Fibre building boards — Sampling, cutting and inspection.* (In preparation)

3 PRINCIPLE

Determination of the water absorption by calculating the increase in mass, and the swelling by calculating the increase in thickness of the test pieces after complete immersion in water.

4 APPARATUS

4.1 Micrometer and balance, as specified in ISO 766.

4.2 A thermostatically controlled tank, the temperature of which can be kept at 20 ± 1 °C and in which the immersed test pieces can be maintained in the conditions indicated in section 6.

4.3 Sheets of cellulose wadding, or blotting paper, square in shape, with sides of at least 120 mm and of substance equal to or more than 200 g/m^2.

4.4 Square plate, with sides measuring 120 mm and having a mass of approximately 3 kg.

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 perforated boards, the dimensions of the test pieces shall be such that they are representative of the whole board.

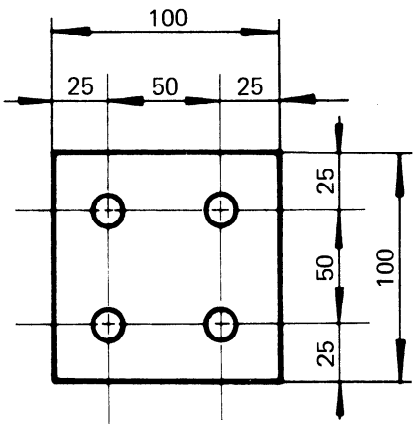
5.3 The test pieces shall be conditioned to constant mass[1] in an atmosphere of a relative humidity of 65 ± 5 % and a temperature of 20 ± 2 °C.

6 PROCEDURE

6.1 Each test piece shall be weighed to an accuracy of ± 0.1 g.

6.2 The thickness of each test piece shall be measured in accordance with ISO 766, at four different points, shown as circles in the drawing below.

Dimensions in millimetres



The mean arithmetical value of the four measurements, stated to the nearest 0.01 mm, is considered to be the thickness of the test piece.

6.3 The test pieces, well separated from each other as well as from the bottom and sides of the tank, shall then be immersed vertically in clean and calm water having a pH value of 6 ± 1 and a temperature of 20 ± 1 °C at the beginning of every new test. The upper edges shall be immersed approximately 20 mm below the surface of the water.

1) 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.