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Granulated cork — Determination of moisture content

Granulés de liège — Détermination de l'humidité

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html .

The committee responsible for this document is ISO/TC 87, *Cork*.

This fourth edition cancels and replaces the third edition (ISO 2190:1998), of which it constitutes a minor revision. Minor editorial details have been introduced in this edition (see French title and Clause 3 and 5.3).

Granulated cork — Determination of moisture content

1 Scope

This document specifies the reference method for determination of the moisture content of granulated cork.

NOTE For the purposes of factory control, the manufacturer can choose another test method and/or different equipment. In this case, it is important to establish the co-relation between that method (current method) and the reference method.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2067, *Granulated cork — Sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 633 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
moisture content
loss of mass of a test specimen after drying under specific conditions, compared to the initial mass of the test specimen

4 Principle

Weighing, drying and reweighing of a test specimen; the loss of mass calculated is the moisture content.

5 Apparatus

Ordinary laboratory equipment and, in particular, the following.

5.1 Balance, with a resolution of 0,01 g.

5.2 Oven, ventilated, and maintained at (103 ± 2) °C.

5.3 Open containers (dry), of such dimensions that allow the test specimen to be about 50 mm high.

To dry the containers, put them in the oven at 103 °C for 30 min. Then put the containers in the desiccator for 30 min.

5.4 Desiccators, of adequate capacity to hold the containers, and containing an efficient desiccant (e.g. silica gel).

6 Sampling

Carry out the sampling in accordance with the procedure specified in ISO 2067.

7 Procedure

7.1 Test sample

From the laboratory sample (see ISO 2067), take at random three test specimens of about 50 g each.

7.2 Determination

Determine the mass of each container (5.3) to the nearest 0,1 g (m_1).

Place each test specimen in a container, distributing it in such a way that its surface is horizontal and the test specimen is about 50 mm high.

Determine the mass of each set (m_2), to the nearest 0,1 g. Put the sets in the oven (5.2) set at 103 °C, for at least 1 h. Then place them in the desiccator and let them cool for at least 30 min. Then determine the mass of each set.

Repeat the procedure described above until constant mass (i.e. until two consecutive weighings of each set do not differ by more than 0,5 g) (m_3).

To accelerate the test, it is advisable that the first drying be for at least 3 h.

8 Results

8.1 Calculation

The moisture content of each test specimen referred to in the initial mass (before drying) and expressed as a percentage, rounded off to the nearest integer, is given by the formula:

$$\frac{m_2 - m_3}{m_2 - m_1} \times 100$$

where

m_1 is the mass, in grams, rounded off to the nearest 0,1 of the container;

m_2 is the mass, in grams, rounded off to the nearest 0,1 of the container and test specimen (set) before drying;

m_3 is the mass, in grams, rounded off to the nearest 0,1 of the container and test specimen (set) after drying.

8.2 Expression of results

Take as the moisture content of the granulated cork the average, rounded off to the nearest integer, of the results obtained for each test specimen.