
**Granulated cork — Determination of
apparent bulk density**

Granulés de liège — Détermination de la masse volumique apparente

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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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

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

This third edition cancels and replaces the second edition (ISO 2031:1991) of which it constitutes a minor revision. Minor editorial changes have been made in this edition.

Granulated cork — Determination of apparent bulk density

1 Scope

This International Standard specifies a method of determining the apparent bulk density of granulated cork, as defined in ISO 633.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 633, *Cork — Vocabulary*

ISO 2067, *Granulated cork — Sampling*

3 Apparatus

3.1 Balance, accurate to 0,5 g.

3.2 Oven, capable of maintaining a temperature of (20 ± 2) °C and a relative humidity of (65 ± 5) %.

3.3 Cubic container with a known accurate mass, capacity 2 dm³ (side 126 mm) to be used with granulates having a grain size larger than 4 mm (see [Figure 1](#)).

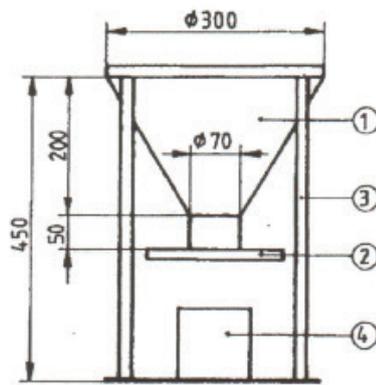
3.4 Cubic container with a known accurate mass, capacity 1 dm³ (side 100 mm) to be used with granulates having a grain size equal to or lower than 4 mm (see [Figure 1](#)).

3.5 Wooden ruler.

3.6 Hopper stand, for the hopper with a height such that the upper rim of the hopper is 450 mm away from the supporting surface (see [Figure 1](#)).

3.7 Conical hopper, of stainless steel, with:

- upper and lower diameters of 300 mm and 70 mm respectively, at a distance of 200 mm from each other;
- the top of the hopper is open and the bottom ends in a cylindrical tube 50 mm high with a removable bottom, which allows a quick and complete opening of the cylindrical tube, in such a way that the granulated cork falls down into the container, always at the same speed and flow type (see [Figure 1](#)).

**Key**

- 1 conical hopper
- 2 removable bottom
- 3 stand for the hopper
- 4 cubic container

Figure 1 — Apparatus**4 Sampling**

Follow the instructions given in ISO 2067.

5 Procedure**5.1 Preparation of the sample**

Condition the sample at a temperature of $(20 \pm 2) ^\circ\text{C}$ and a relative humidity of $(65 \pm 5) \%$, keeping it in the oven (3.2) for 24 h.

For process control, record the environmental conditions under which the determinations are carried out. The ambient temperature shall not exceed $30 ^\circ\text{C}$.

5.2 Test portion

Immediately after conditioning the sample, take at random a test portion large enough (see ISO 2067) to fill the cubic container (3.3 or 3.4 depending on the granularity) three times, allowing for overfill.

5.3 Determination

Hang the hopper (3.7) on the stand (3.6). Place the cubic container (3.3 or 3.4) under the base of the hopper and on the supporting surface of the stand.

Close the hopper bottom and pour the test portion to fill the hopper.

Do not move or shake the container up to the determination of its weight. Do not compress the granules. Open fully the bottom of the hopper (3.7) and allow enough granulated cork to fall until you completely fill the container. Use the ruler (3.5) to level the top.

Weigh it on the balance (3.1) taking into account the mass of the cubic container.

Perform three tests, each time with the same portion.