
**Carbonaceous materials used in the
production of aluminium — Baked
anodes and cathode blocks —**

Part 1:
**Determination of apparent density
using a dimensions method**

*Produits carbonés utilisés pour la production de l'aluminium —
Anodes cuites et blocs cathodiques —*

*Partie 1: Détermination de la masse volumique apparente par une
méthode de mesurage dimensionnel*



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Published in Switzerland

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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 voluntary nature of standards, 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.

This document was prepared by Technical Committee ISO/TC 226, *Materials for the production of primary aluminium*.

This second edition cancels and replaces the first edition, ISO 12985-1:2000, of which it constitutes a minor revision.

A list of all parts in the ISO 12985 series can be found on the ISO website.

Carbonaceous materials used in the production of aluminium — Baked anodes and cathode blocks —

Part 1:

Determination of apparent density using a dimensions method

1 Scope

This document specifies a dimensions method for the determination of the apparent density of carbonaceous products used in the production of aluminium.

This method is applicable to samples with a simple or well-defined geometry (for example cylindrical, rectangular parallelepipedal or cubic) and a smooth surface profile. The accuracy of measurement is strongly influenced by the equipment used for sampling, i.e. the drilling and sawing machines.

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 8007-1, *Carbonaceous materials used in the production of aluminium — Sampling plans and sampling from individual units — Part 1: Cathode blocks*

ISO 8007-2, *Carbonaceous materials used in the production of aluminium — Sampling plans and sampling from individual units — Part 2: Prebaked anodes*

3 Terms and definitions

No terms and definitions are listed in this document.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

The geometry of the test specimen and its mass are measured and the apparent density is calculated.

5 Apparatus

5.1 Balance, capable of weighing to the nearest 0,1 g for test specimens with a mass of 100 g or more and capable of weighing to the nearest 0,01 g for test specimens of a mass of less than 100 g.

5.2 Callipers, for measuring the sample dimensions, capable of measuring to the nearest 0,05 mm for dimensions of 30 mm or more and capable of measuring to the nearest 0,01 mm for dimensions of less than 30 mm.