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Coke — Determination of bulk density in a large container

Coke — Détermination de la masse volumique en vrac dans un récipient de grandes dimensions

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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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This document was prepared by Technical Committee ISO/TC 27, *Coal and coke*, Subcommittee SC 03, *Coke*.

This third edition cancels and replaces the second edition (ISO 1013:1995), which has been technically revised.

The main changes compared to the previous edition are as follows:

— minor corrections only;

— Bibliography was added.

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Introduction

The coke bulk density depends on its physical characteristics, e.g. apparent relative density, shape and size of the coke particles, and on the dimensions of the container. The method described in this document is based on the use of any suitable large container, possibly that in which the coke is delivered, such as a wagon or skip. The determination of coke bulk density in a small container (of specified dimensions) is described in ISO 567.

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Coke — Determination of bulk density in a large container

1 Scope

This document specifies a method for the determination of the coke bulk density in a large container such as a wagon or skip.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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/

3.1
coke bulk density
ρ_1
mass of a portion of a sample of coke divided by the volume of the container, which is filled by that portion under specified conditions

4 Principle

A weighed container of known volume is filled with coke and the increase in mass is determined.

5 Apparatus

5.1 **Container**, such as a wagon or skip, capable of holding at least 3 metric tonnes of the coke.

5.2 **Machine**, machine, capable of weighing the container and its contents to an accuracy of 0,2 %.

6 Procedure

Weigh the empty container (5.1) on the weighing machine (5.2). Measure the internal dimensions of the container to the nearest 1 cm and calculate its capacity.

If the container is already fully charged, it should be weighed with the coke first, then be weighed empty and also be measured.

With the container on a level surface, carefully charge the coke into it until pieces of coke project above the top of the container across the whole surface.

Slide a straightedge across the top of the container and remove any pieces of coke, which obstruct its passage. Weigh the charged container.

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