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Coal and coke — Mechanical sampling~~—~~ —

Part 1:
General introduction

~~Houille~~Charbon et coke — Échantillonnage mécanique —

Partie 1: Introduction générale

FDIS stage

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Foreword

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Field Code Changed

This document was prepared by Technical Committee ISO/TC 27, *Coal and coke*, Subcommittee SC 4, *Sampling*.

This third edition cancels and replaces the second edition (ISO 13909-1:2016), which has been technically revised.

The main changes are as follows:

— the title has been changed to coal and coke and aligned with the rest of the ISO 13909 series;

— the scope has been modified to specifically include sampling of brown coals and lignites

A list of all parts in the ISO 13909 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Field Code Changed

Coal and coke — Mechanical sampling— —

Part 1:
General introduction

1 Scope

This document defines the basic terms used in the sampling of coal and coke, describes the general principles of sampling and details the information to be provided in the documentation and the sampling report. It also lists the other parts of the ISO 13909 series and gives guidance on the selection of the appropriate part.

The ISO 13909 series also includes sampling of brown coals and lignites.

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 terminology databases for use in standardization at the following addresses:

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

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

3.1 ~~3.1~~
air-drying
process of bringing the moisture content of the *sample* (3.31(~~3.31~~)) near to equilibrium with the atmosphere in the area in which further reduction and division of the sample are to take place

Note 1 to entry: Air-drying to equilibrium with the atmosphere applies to coal. Drying of coke is generally to facilitate *sample preparation* (3.34(~~3.34~~)).

3.2 ~~3.2~~
bias
systematic *error* (3.10(~~3.10~~)) which leads to the average value of a series of results being persistently higher or persistently lower than those which are obtained using a reference sampling method

3.3 ~~3.3~~
coefficient of variation
standard deviation (3.37(~~3.37~~)) expressed as a percentage of the absolute value of the arithmetic mean

3.4 ~~3.4~~
common sample
sample (3.31(~~3.31~~)) collected for more than one intended use

3.5 ~~3.5~~
continuous sampling
taking of a *sample* (3.31(~~3.31~~)) from each consecutive *sub-lot* (3.39(~~3.39~~)) so that increments are taken at uniform intervals whenever the fuel is handled at the point of sampling

3.6 ~~**3.6**~~
cut
~~see~~ *increment* (3.15~~(3.15)~~) taken by a primary sampler or sample divider

3.7 ~~**3.7**~~
cutter
mechanical sampling device which extracts *increment(s)* (3.15)

3.8 ~~**3.8**~~
divided increment
part obtained from the division of the *increment* (3.15) in order to decrease its mass

Note 1 to entry: Such division may be done with or without prior size reduction.

3.9 ~~**3.9**~~
duplicate sampling
particular case of *replicate sampling* (3.30~~(3.30)~~) with only two replicate *samples* (3.31~~(3.31)~~)

3.10 ~~**3.10**~~
error
difference between the observation and the accepted reference value as defined in ISO 5725~~-~~-1:2023 3.2

Note 1 to entry: This can be designated as systematic error [*bias* (3.2~~(3.2)~~)] or *random error* (3.29~~(3.29).~~).

3.11 ~~**3.11**~~
fixed mass division
method of *sample division* (3.33~~(3.33)~~) in which the mass retained is predetermined and independent of the mass of the feed

3.12 ~~**3.12**~~
fixed ratio division
method of *sample division* (3.33~~(3.33)~~) in which the division ratio is predetermined

Note 1 to entry: In fixed ratio division, the mass of *sample* (3.31~~(3.31)~~) retained is a fixed proportion of the mass of the feed.

3.13 ~~**3.13**~~
fuel
coal or coke

3.14 ~~**3.14**~~
test sample for general analysis
sample (3.31~~(3.31),~~) prepared to pass a sieve of nominal size of openings 212 µm ~~complying~~conforming with ISO 3310~~-~~-1, used for the determination of most chemical and some physical characteristics

3.15 ~~**3.15**~~
increment
portion of *fuel* (3.13~~(3.13)~~) extracted in a single operation of the sampling device

3.16 ~~**3.16**~~
lot
defined quantity of *fuel* (3.13~~(3.13)~~) for which the quality is to be determined

Note 1 to entry: A lot may be divided into *sub-lots* (3.39~~(3.39).~~).