# INTERNATIONAL STANDARD

ISO 728

Fourth edition 2021-06

## **Coke** — Size analysis by sieving

Cok — Analyse granulométrique par tamisage





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#### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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For an explanation of 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 <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 27, *Coal and coke*, Subcommittee SC 3, *Coke* 

This fourth edition of ISO 728 cancels and replaces ISO 728:1995 and ISO 2325:1986, which have been technically revised.

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

- the coke size analysis of the minus 20 mm fractions has been moved to this document;
- low impact mechanical sieving was added to the scope;
- hand placing of coke was introduced from 125 mm down to 22,4 mm to be consistent with coal sizing ISO 1953;
- ISO 728 now incorporates ISO 2325;
- the coke mean size calculation was modified, moved from an annex to the main document and a worked example added.

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 <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

### Coke — Size analysis by sieving

#### 1 Scope

This document specifies procedures for the size analysis of coke by manual and/or low impact mechanical sieving, using square or round holed sieves of aperture sizes between 125 mm and 0,5 mm. Guidance on handling the sampling and sizing of coke products greater than 125 mm is given in Annex A.

#### 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. The latest edition of the referenced document (including any amendments) applies.

ISO 579, Coke — Determination of total moisture

ISO 1213-2, Solid mineral fuels — Vocabulary — Part 2: Terms relating to sampling, testing and analysis

ISO 3310-1, Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth

ISO 3310-2, Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate

ISO 13909-5, Hard coal and coke - Mechanical sampling - Part 5: Coke - Sampling from moving streams

ISO 13909-6, Hard coal and coke — Mechanical sampling — Part 6: Coke — Preparation of test samples

ISO 18283, Hard coal and coke — Manual sampling

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1213-2 apply.

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

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

#### 4 Principle

A sample of coke with less than 5 % moisture is subjected to a process of size analysis by a specified manual and or mechanical sieving, and the results are expressed in terms of the cumulative percentage by mass of the coke remaining on sieves of different sized openings.

#### 5 Apparatus

#### **5.1 Test sieves**, in accordance with ISO 3310-1 and ISO 3310-2.

The set of sieves used shall have exclusively round holes or exclusively square holes. It is important to check the sieves from time to time, using the methods specified in ISO 3310-1 and ISO 3310-2, to ensure that the hole dimensions are within the specified tolerances. Worn or damaged sieves can give rise to serious errors in size analysis and shall be discarded. The test sieves should be selected according to the requirements of the test and the characteristics of the sample. If possible, the series of sieves should