
International Standard



2325

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Coke — Size analysis (Nominal top size 20 mm or less)

Coke — Analyse granulométrique (Dimension nominale égale ou inférieure à 20 mm)

Third edition — 1986-02-15

UDC 662.749.2 : 620.168.32

Ref. No. ISO 2325-1986 (E)

Descriptors : solid fuels, coke, tests, grain size analysis, sieve analysis.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 2325 was prepared by Technical Committee ISO/TC 27, *Solid mineral fuels*.

This third edition cancels and replaces the second edition (ISO 2325-1979), of which it constitutes a minor revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Coke — Size analysis (Nominal top size 20 mm or less)

1 Scope and field of application

This International Standard specifies a method of determining the particle size distribution of a sample of coke having a nominal top size of 20 mm or less. Two methods of operation are described :

- a) where a restricted size analysis is required, using two sieves only;
- b) where a complete size analysis is required.

2 References

ISO 565, *Test sieves — Woven metal wire cloth, perforated plate and electroformed sheet — Nominal sizes of openings*

ISO 579, *Coke — Determination of total moisture*.

ISO 1953, *Hard coals — Size analysis*.

ISO 2309, *Coke — Sampling*.

ISO 2591, *Test sieving*.

ISO 3310, *Test sieves — Technical requirements and testing*

- Part 1 : *Test sieves of metal wire cloth*.
- Part 2 : *Test sieves of metal perforated plate*.

3 Principle

A sample of coke is subjected to a process of size analysis by a specified procedure, and the results are expressed in terms of the cumulative percentage by mass of the coke remaining on sieves of different sized openings.

4 Apparatus

4.1 Perforated plate sieves, of round opening size respectively 20 mm and 10 mm.

4.2 Wire cloth test sieves, of the following opening sizes :

- 16, 8, 4, 2 and 1 mm;
- 500, 250, 125 and 63 μm .

These sieves are conveniently shaken by means of an appropriate mechanical shaking machine.

The sieves (4.1 and 4.2) shall comply, when selected and during use, with ISO 565, ISO 3310/1 and ISO 3310/2.

4.3 Lightweight containers, of metal or plastic material, for the sample and the fractions sieved from it. The largest container shall be capable of holding 20 kg of sample.

4.4 Weighing machines, suitable for weighing a mass of up to 30 kg, such that the weighing error does not exceed 0,1 % of the maximum mass of sample or 10 g, whichever is the smaller.

5 Sample

The sample shall be representative of the coke and shall be taken as specified in ISO 2309. For coke containing appreciable quantities (over 20 %) above 10 mm, the mass of the sample shall be 20 kg and the whole of this sample shall be used for size analysis. For samples where the nominal top size is 2,8 mm or less, the mass of sample used for size analysis shall be not less than 0,3 kg and preferably not more than 0,5 kg. This quantity shall be taken from the primary sample using one of the following methods of sample division :

- cone divider;
- riffle splitter;
- coning and quartering.

Intermediate masses for the test sample shall be taken according to the nominal top size of the coke.

6 Procedure

6.1 Restricted size analysis on two sieves

Before commencing the test, dry the coke sample at a temperature of 200 °C (see ISO 579).

Weigh the sample to the nearest 10 g. Place the two sieves (4.1) or two of the sieves (4.2) one above the other in a suitable frame, with the sieve of larger opening size uppermost. Place the receiving tray below the sieve of smaller opening.