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Third edition
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Coke — Determination of shatter indices

Coke — Détermination des indices de chute

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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 www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 www.iso.org/iso/foreword.html.

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

This third edition cancels and replaces the second edition (ISO 616:1995), which has been technically revised.

The main changes are as follows:

— general and technical revision;

— inclusion of references to ISO 13909-6 and ISO 18283 in Clause 6;

— provision of an example of an apparatus and a modernized mechanism that can raise the sample box to the standard height is permitted.

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.

Introduction

The shatter index of coke is the percentage of test sample (initially plus 63 mm) that remains on a test sieve of stated size of openings after the sample has been subjected to a specified dropping test.

The shatter index of coke can be determined for one test sieve or for each of a number of test sieves of different sizes of holes (e.g. 80 mm and 40 mm). The higher the shatter index, the greater the resistance of the coke to breakage into pieces which are smaller than the stated size.

The mean size of the coke before and after the shatter test may also be determined to give additional information about the strength of the coke.

Coke — Determination of shatter indices

1 Scope

This document specifies a method for determining the strength of coke by the shatter test.

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 579, *Coke — Determination of total moisture*

ISO 728, *Coke — Size analysis by sieving*

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

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 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
shatter index
percentage of a specially prepared sample of coke remaining on a test sieve of stated size of openings after the sample has been subjected to a specified dropping test

4 Principle

A test portion taken from the coke above a specified size is dropped under standard conditions. The mass of coke which is then retained on a test sieve, or on each of two or more test sieves of different sizes of holes, is determined.

5 Apparatus

5.1 Shatter test apparatus (see Figure 1), mounted on a solid base and consisting of the following parts.