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Standard Test Method for DESIGNATING THE SIZE OF COAL FROM ITS SIEVE ANALYSIS¹

This standard is issued under the fixed designation D 431; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the designation of coal sizes from the results of sieve analysis tests of samples taken to represent the condition of the coal as sold. This test method applies only to natural continuous ranges of sizes as produced by mining, handling, crushing, screening, etc. In the case of special mixtures, or where the sieve analysis indicates a substantial deviation from a normal gradation of sizes, a sufficiently complete sieve analysis to properly describe the size composition shall be made and reported in accordance with Method D 410.

1.2 This test method does not cover the standardization of sieves used in the commercial preparation of coal.

1.3 The values stated in inch-pound units are to be regarded as the standard.

1.4 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Applicable Documents

2.1 ASTM Standards:

D 310 Test Method for Size of Anthracite²

D 410 Method for Sieve Analysis of Coal²

E 11 Specification for Wire-Cloth Sieves for Testing Purposes²

E 323 Specification for Perforated-Plate Sieves for Testing Purposes²

3. Significance and Use

3.1 This test method concerns the designation of coal into definite size fractions for purposes of characterizing the material for further processing or for commercial purposes.

4. Sampling and Sieve Analysis

4.1 Perform sampling and sieve analysis in accordance with Method D 410.

5. Sieves

5.1 Size designations in terms of sieves of the following series, shall conform to Specifications E 11 or E 323.

5.1.1 Round-Hole Screens:

8-in. (...)	1½-in. (37.5 mm)
6-in. (...)	1¼-in. (31.5 mm)
5-in. (125-mm)	1-in. (25.0 mm)
4-in. (100-mm)	¾-in. (19.0 mm)
3-in. (75-mm)	½-in. (12.5 mm)
2½-in. (63-mm)	⅜-in. (9.5 mm)
2-in. (50-mm)	

5.1.2 Wire-Cloth Sieves with Square Openings:

No. 4	(4.75-mm)
No. 8	(2.36-mm)
No. 16	(1.18-mm)
No. 30	(600-μm)
No. 50	(300-μm)
No. 100	(150-μm)
No. 200	(75-μm)

¹ This test method is under the jurisdiction of ASTM Committee D-5 on Coal and Coke and is the direct responsibility of Subcommittee D05.07 on Physical Characteristics of Coal.

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² Annual Book of ASTM Standards, Vol 05.05.