



Designation: D2234/D2234M – 20

## Standard Practice for Collection of a Gross Sample of Coal<sup>1</sup>

This standard is issued under the fixed designation D2234/D2234M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### INTRODUCTION

Data obtained from coal samples are used in establishing price, controlling mine and cleaning plant operations, allocating production costs, and determining plant or component efficiency. The task of obtaining a sample of reasonable mass to represent an entire lot presents a number of problems and emphasizes the necessity for using standard sampling procedures.

Coal is one of the most difficult of materials to sample, varying in composition from noncombustible particles to those which can be burned completely, with all gradations in between. The task is further complicated by the use of the analytical results, the sampling equipment available, the quantity to be represented by the sample, and the degree of precision required.

This practice gives the overall requirements for the collection of coal samples. The wide varieties of coal-handling facilities preclude the publication of detailed procedures for every sampling situation. The proper collection of the sample involves an understanding and consideration of the physical character of the coal, the number and mass of increments, and the overall precision required.

### 1. Scope

1.1 This practice covers procedures for the collection of a sample under various conditions of sampling and directs the user to the appropriate ASTM standard for that sampling condition. The sample is to be crushed and further prepared for analysis in accordance with Practice [D2013/D2013M](#). However, the procedures for dividing large samples before any crushing are given in this practice.

1.2 This practice describes general and special purpose sampling procedures for coals (1) by size and condition of preparation (for example, mechanically cleaned coal or raw coal) and (2) by sampling characteristics.

1.3 *Units*—The values stated in either SI units or non-SI units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appro-*

*priate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

[D121 Terminology of Coal and Coke](#)

[D2013/D2013M Practice for Preparing Coal Samples for Analysis](#)

[D4749 Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size](#)

[D6609 Guide for Part-Stream Sampling of Coal](#)

[D6883 Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles](#)

[D7430 Practice for Mechanical Sampling of Coal](#)

[E456 Terminology Relating to Quality and Statistics](#)

### 3. Terminology

3.1 *Definitions*—Definitions applicable to this practice are listed in Terminology [D121](#).

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee [D05](#) on Coal and Coke and is the direct responsibility of Subcommittee [D05.23](#) on Sampling.

Current edition approved April 1, 2020. Published April 2020. Originally approved in 1963. Last previous edition approved in 2019 as D2234/D2234M – 19. DOI: 10.1520/D2234\_D2234M-20.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.