



Standard Practice for Production of Coal, Coke and Coal Combustion Samples for Interlaboratory Studies¹

This standard is issued under the fixed designation D6796; 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 practice describes the essential activities that are required to produce samples for interlaboratory studies.

1.2 The suitability of a particular interlaboratory sample developed using this guide will depend on the tests being made.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

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 appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[D121 Terminology of Coal and Coke](#)

[D346/D346M Practice for Collection and Preparation of Coke Samples for Laboratory Analysis](#)

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

[D2234/D2234M Practice for Collection of a Gross Sample of Coal](#)

[D2492 Test Method for Forms of Sulfur in Coal](#)

[D2961 Test Method for Single-Stage Total Moisture Less than 15 % in Coal Reduced to 2.36-mm \(No. 8 Sieve\) Topsize](#)

[D3173 Test Method for Moisture in the Analysis Sample of Coal and Coke](#)

[D3302/D3302M Test Method for Total Moisture in Coal](#)

[D4596 Practice for Collection of Channel Samples of Coal in a Mine](#)

[D5263 Test Method for Determining the Relative Degree of Oxidation in Bituminous Coal by Alkali Extraction](#)

[D7582 Test Methods for Proximate Analysis of Coal and Coke by Macro Thermogravimetric Analysis](#)

[E178 Practice for Dealing With Outlying Observations](#)

[E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method](#)

[E826 Practice for Testing Homogeneity of a Metal Lot or Batch in Solid Form by Spark Atomic Emission Spectrometry](#)

3. Terminology

3.1 *Definitions*—For definitions of terms used in this practice, refer to Terminology [D121](#).

4. Summary of Practice

4.1 Test samples of adequately defined composition and homogeneity are required for interlaboratory studies. These samples should be typical in all respects to the samples for which the test method is applicable.

4.1.1 The sample should be of sufficient quantity to perform all necessary tests and replicates. Guidelines specifying minimum quantities are given in Practice [D2013/D2013M](#).

4.1.2 The top size must be consistent for the test being run.

4.2 Differences in results due to the homogeneity or oxidation, or both, of the test sample should be minimal with respect to other errors.

5. Significance and Use

5.1 The objective of this practice is to provide guidelines for the preparation of samples for interlaboratory studies to evaluate new test methods or for quality control purposes.

5.2 Samples prepared using these guidelines may be used for the testing of the precision and bias mandatory for ASTM test methods. Such an evaluation is necessary to provide guidance to the user as to the reliability of measurements that can be expected by its use. The statements are developed on the basis of user experience (ordinarily through interlaboratory studies) with the test method.

5.3 The availability of appropriate samples is a key requirement for interlaboratory studies.

¹ This practice is under the jurisdiction of ASTM Committee [D05](#) on Coal and Coke and is the direct responsibility of Subcommittee [D05.24](#) on Statistics.

Current edition approved March 1, 2016. Published May 2016. Originally approved in 2002. Last previous edition approved in 2008 as D6796–02(2008). DOI: 10.1520/D6796-16.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.