



Designation: D4296 – 24a

Standard Practice for Sampling Pitch¹

This standard is issued under the fixed designation D4296; 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 covers procedures for sampling pitch at points of manufacture, storage, and delivery.

1.2 The values stated in SI units are to be regarded as standard. The values in parentheses are for information only.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* Specific warning statements are given in Section 12.

1.4 *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:²

D4175 Terminology Relating to Petroleum Products, Liquid Fuels, and Lubricants

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms used in this practice, refer to Terminology D4175.

3.1.2 *bulk sample, n*—the reduced and divided representative portion of the gross sample as prepared for shipment to and received by a laboratory to be prepared for analysis.

3.1.3 *composite sample, n—in pitch*, a sample, representative of an entire consignment of pitch, generated by mixing

¹ This practice is under the jurisdiction of ASTM Committee D02 on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee D02.05 on Properties of Fuels, Petroleum Coke and Carbon Material.

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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.

portions of gross samples from different lots together in mass fraction proportioned to the consignment.

3.1.4 *gross sample, n—in pitch*, the original, uncrushed representative portion taken from a shipment of pitch.

3.1.5 *increment, n*—a portion of a material to be combined with other portions of the same material to provide a larger sample which will represent the whole material.

3.1.6 *representative sample, n*—a portion extracted from the total volume that contains the constituents in the same proportions that are present in that total volume.

3.1.7 *sample, n*—a portion extracted from a total volume that may or may not contain the constituents in the same proportions that are present in that total volume.

4. Summary of Practice

4.1 Samples of liquid pitches are taken from process lines, storage, and shipment containers in increments required to prepare a representative sample for testing.

4.2 Samples of solid pitches are taken from loading systems, storage, and shipment containers in increments required to prepare a representative sample for testing.

5. Significance and Use

5.1 Sampling is as important as testing. If the sampling is improperly done, the sample of the material will be in error, and the analysis will not represent the true properties of the material, and it may be impossible or impracticable to take another sample; whereas, if the sample is properly taken and the analysis is in error, another analysis can readily be made of the original sample.

5.2 Samples may be taken for either of the following two purposes:

5.2.1 To represent as nearly as possible an average of the bulk of the materials sampled, or

5.2.2 To ascertain the maximum variation in characteristics which the material possesses.

5.3 A good sampling plan has the following characteristics:

5.3.1 It protects the consumer against the acceptance of a bad batch of material.

5.3.2 It protects the producer against the rejection of a good batch of material.

5.3.3 It gives long-range protection to the consumer.

*A Summary of Changes section appears at the end of this standard