Designation: D4296 – 83 (Reapproved 2009)

Standard Practice for Sampling Pitch[1]

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 and health practices and determine the applicability of regulatory limitations prior to use.* Specific warning statements are given in Section 11.

2. Terminology

2.1 *Definitions:*

2.1.1 *bulk sample*—a large sample, either from one place or made up of several incremental samples of the same material.

2.1.2 *composite sample*—a thoroughly mixed gross sample.

2.1.3 *gross sample*—a large sample made up of several portions (increments) of a mass of material.

2.1.4 *increment*—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.

2.1.5 *representative sample*—a part of a homogeneous material, or a part of the composited and mixed portions of a material, which carries all the true properties and physical characteristics of the whole material.

2.1.6 *sample*—a part taken as representative of a whole material.

3. Summary of Practice

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

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

4. Significance and Use

4.1 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.

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

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

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

4.3 A good sampling plan has the following characteristics:

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

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

4.3.3 It gives long-range protection to the consumer.

4.3.4 It encourages the producer to keep his process in control.

4.3.5 It minimizes the cost of sampling, inspection of testing, and administration.

4.3.6 It provides information concerning the quality of the product.

4.4 *Sampling Integrity*—When one takes a sample, one is attempting to represent a batch or lot of material with that sample. Different forms of pitch, and pitch in different types of containers, need to have different sampling plans and appropriate sampling equipment. Each sampling plan should be designed so that it accomplishes its objective, which is to ascertain the characteristics or quality of a batch or lot of material.

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

Current edition approved Oct. 1, 2009. Published November 2009. Originally approved in 1983. Last previous edition approved in 2004 as D4296–83(2004). DOI: 10.1520/D4296-83R09.

Copyright © ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States.