



Designation: D 3925 – 91 (Reapproved 1996)

Standard Practice for Sampling Liquid Paints and Related Pigmented Coatings¹

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1. Scope

1.1 This practice describes methods of taking representative samples of fluid paint or pigmented coating products from containers of any type.

1.2 The sampling of dry powder paints, clear coatings, mixed solvents, and nonpigmented materials of any type is not covered in this procedure.

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.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 1475 Test Method for Density of Paint, Varnish, Lacquer, and Related Products²

3. Terminology

3.1 *Definitions of Term Specific to This Standard:*

3.1.1 *batch*—the quantity of liquid paint or coating produced in the final mixing operation after all production processes are complete. For example, when a number of pigment dispersions are reduced with additional vehicle together in a large tank, the resulting final mixture is one batch.

4. Significance and Use

4.1 Samples are taken from batches, lots, and shipments of paint in order to determine their uniformity and compliance with specification requirements. It is very important that these samples be of convenient and economical size and that they be representative of the batch of paint at the time it was filled into shipping or storage containers.

4.2 The time and effort necessary to ensure that the sample is representative of the original material will be repaid in reduction of laboratory work and elimination of possible rejections of acceptable material.

5. Sampling Considerations

5.1 The use of common sense and good judgment is important even in the apparently simple task of taking samples.

5.2 Use care to ensure that all containers, agitating equipment, and sampling apparatus are *clean* and that they can in no way contaminate the sample being taken. Slight contamination of the paint sample may lead to false test results.

5.3 The sample container should be dry and not cooler than the temperature of the area in which the sample is to be taken.

5.4 Because pigmented coatings are dispersions and not solutions, finely divided pigment particles dispersed in the coating vehicle may settle upon standing. Consequently, thorough and careful agitation before sampling is necessary to restore the paint to its original, uniform condition. The method of agitating or stirring is therefore of prime importance.

5.5 As soon as samples of paint are taken from the shipping or storage container, place them in clean, nonreactive, dry, air-tight containers to prevent evaporation. Do not store samples in plastic bottles because volatile solvents may diffuse through the walls. Loss of volatile solvents may introduce errors in such tests as viscosity, weight per gallon, and nonvolatile content as well as other properties. If cap liners are used, they should also be nonreactive with the material. If the sample is self reactive or highly volatile, appropriate sample container precautions should be taken to prevent overpressurization of the container.

5.6 When representative samples have been obtained and packaged in clean, closed containers, deliver them promptly to the testing laboratory. During the period between sampling and delivery to the testing laboratory it is important that samples be kept at temperatures from 40 to 100°F (5 to 40°C) because extremes of temperature may change properties of some paint products.

6. Procedure

6.1 Because of differences in physical properties, somewhat different procedures are required for agitating and sampling those paints containing water as the volatile component in comparison to those containing organic solvents. For coatings with no volatile ingredients, use the method applicable to materials containing organic solvents.

6.2 *Pigmented Coatings Containing Organic Solvents*—Materials in this group are of many different types but all

¹ This practice is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.20 on Quality Assurance and Statistics.

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² *Annual Book of ASTM Standards*, Vol 06.01.