Capacity of Cups and Containers Standard*

1. Scope

1.1 This method is designed for determining that liquid capacity of cups and containers.

2. Apparatus and Materials

2.1 Automatic burette, 17-ounce capacity, graduated in 0.1 oz, divisions.

2.2 Circular Plexiglas (or equivalent) capacity discs, 3.2 mm. (1/8") thickness, various sizes to correspond to the overall brim Diameter of each cup or container to be tested and 30 degree beveled edge and the following additional specifications;

2.3 20 mm. (3/4") diameter hole through the center.

3. Sample Preparation

3.1 Obtain a minimum of 5 consecutive cups from each variable.

4. Test Procedure

4.1 Fill the burette with tap water so the water begins to flow out of the automatic overflow.

4.2 Check the bottom of the water meniscus to insure that it is on the burette "ZERO" mark.

4.3 Select a capacity disc with a diameter approximately 6mm. (1/4") larger than the outside brim of the cup or container being tested. Place the disc, centered, with the beveled edge downward on the cup or container, and place the test cup or container under the burette so that the hole in the disc is directly centered under the burette tip. Allow enough room to remove the cup/container with disc, yet don't let the water splash due to a large gap between the disc and the burette tip.

4.4 Open the burette stopcock and allow the water to run into the cup/container until the water is approximately 6mm. (1/4") below the disc. Close the stopcock partially to slow the rate of flow. Fill the remainder slowly (to avoid air bubbles) until all of the air in the cup has been displaced and water is evident in the center hole of the disc, ensuring that the hole is not filled. Immediately close the stopcock.

4.5 For cups or containers that have greater than 16-ounce capacity, it is advisable to fill them with 10 or 12 ounces of water then close the stopcock and refill the burette again and continue until the proper end point is reached. Total the amounts of water used.

4.6 Repeat the above process for all additional cups and containers to be tested.

5. Report

5.1 Report the minimum, maximum and average capacities for each sample to the nearest 0.1 oz.

* Complies with the NIST Handbook #133, fourth edition, section 3.6.

Questions? Please send an email to fpi@fpi.org.