

Procedure for Determining Roundness of Glass Beads

1. Scope:

This test is for determining the percent of round glass beads.

2. Apparatus:

2.1 Scale or balance having the capacity to weigh any sample which may be tested utilizing this procedure and readable to the nearest 0.01 gram.

2.2 Sample splitter.

2.3 Sieve #50.

2.4 Adjustable smooth inclined glass or aluminum plate 12 in. x 18 in.

2.5 Wooden pencil or brush.

2.6 Collecting pans.

3. Procedure:

3.1 Reduce sample to 25 to 50 grams by means of a splitter.

3.2 Weigh to the nearest 0.01 grams.

3.3 Split the reduced sample into two fractions using a #50 sieve.

3.4 Set the inclined plate at approximately 3° for the +50 fraction and 10° for the -50 fraction.

3.5 Slowly apply part of the beads to the top of the plate. Tap the plate with a wood pencil or brush to cause the round beads to roll down the incline into a collecting pan. Continue with small applications until the entire sample is processed.

3.6 Repeat the process with the beads that rolled off the plate at least three times for the +50 fraction and at least four times for the -50 fraction.

3.7 Weigh the separated fractions of round beads.

4. Report:

4.1 Calculate the percent of rounds and report to the nearest whole percent.

5. References:

None