

1707

**Mn/DOT Method for Determining Roundness of Glass Beads**

1. Reduce sample to 25 to 50 grams by means of a sample splitter. Weigh to the nearest 0.01 grams.
2. Split the reduced sample into two fractions using a 297  $\mu\text{m}$  (No. 50) sieve.
3. To separate rounds from imperfects, a smooth, 30 mm by 45 mm (12 in by 18 in), inclined glass or aluminum plate is used. The plate is inclined at approximately 3 degrees for the +297  $\mu\text{m}$  (+50) fraction and at approximately 10 degrees for the -297  $\mu\text{m}$  (-50) fraction. Slowly apply part of the beads to the top of the plate. Tap the plate with a wooden pencil or brush to cause round beads to roll down the incline into a collecting pan. Brush the remaining beads into a separate collecting pan. Continue with small applications until the entire sample is processed. Repeat the process with beads that rolled off plate at least three times for the +297  $\mu\text{m}$  (+50) fraction and at least four times for the -297  $\mu\text{m}$  (-50) fraction.
4. Weigh the separated fractions of round beads and calculate percent rounds.