1008.01 Types.
1. 740.09, Type A, paint glass beads
2. 740.09, Type B, polyester glass beads
3. 740.09, Type C, thermoplastic glass beads
4. 740.09, Type D, epoxy glass beads
   a. Size I: sieve nos. 10 through 20 (2.00 mm through 850 um)
   b. Size II: sieve nos. 20 through 100 (850 m through 150 m)

1008.02 Apparatus.
1. Analytical balance, accurate to 0.0004 oz. (.01 g)
2. Sample splitters
   a. 16-to-1
   b. 1:1
3. Mechanical shaker
4. Roundometer
5. Sieves:
   a. 8 inch (200 mm), half- and full-height, stainless steel frame and mesh, sieve nos. 20, 30, 50 and 100 purchased and verified to ASTM E 11.
   b. The remainder are 8 inch (200 mm), half- and full-height, stainless steel frame and mesh, purchased and verified to ASTM E 11.
6. Computerized optical particle analyzer

1008.03 Sampling.
ASTM D 1214, Sieve Analysis of Glass Spheres, Section 6.
1. Paint, polyester, thermoplastic and epoxy size II beads. Obtain one representative sample of approximately 1 gallon (4 liters), or 1 quart (1 liter) by means of a 16 to 1 riffle sampler, from three bags, each from randomly selected racks, constituting a 44,000 lb. (20,000 kg)
shipment of 22 racks. From the 1 gallon (4 liter) or 1 quart (1 liter) sample, obtain an approximately 1.76 oz. (50 gram) test sample by means of a sand splitter. Use the test sample on an as-received basis, unless noticeably damp.

2. **Epoxy size I beads.** Obtain one representative sample of approximately 1 gallon (4 liters), or 1 quart (1 liter) by means of a 16 to 1 riffle sampler, from two bags, each from randomly selected racks, for each 10,000 lbs. (4500 kg) shipment of five racks. From the 1 gallon (4 liter) or 1 quart (1 liter) sample, obtain an approximately 1.76 oz. (50 gram) test sample by means of a sand splitter. Use the test sample on an as-received basis, unless noticeably damp.

**1008.04 Sieve Analysis.**
1. Place the test sample on the top-most sieve of the stack and put the sieve stack in the mechanical shaker. Mechanically sieve for 15 minutes.

2. Proceed as in ASTM D 1214, Section 7.1.2.

3. Weigh and record the weight of the contents of each sieve to the nearest 0.0004 oz. (0.01 gram).


**1008.05 Calculations.**
1. Paint and polyester beads: calculate the total percent passing each sieve, expressed to the nearest 0.1 percent.

2. Thermoplastic and epoxy sizes I and II: calculate the total percent retained for each sieve, expressed to the nearest 0.1 percent.

**1008.06 Roundness of Glass Beads.**
ASTM D 1155, Procedure A, or results from the alternative testing method using computerized optical particle analyzer and AASHTO PP74-13(2018) shall be utilized to determine compliance.

1. In all cases, final inspection of the rounds and unrounds by microscope will show 95+% separation if properly separated.

2. Paint and polyester beads: only the contents of the No. 50 & 100 sieves (300 m & 150 m) are tested.
- nominal elevation of the vibrating table in order to properly separate the beads.

3. Thermoplastic: only the contents of the No. 40 & 50 sieves (425 m & 300 m) are tested.
- nominal elevation of the vibrating table: sieve no. position as designated by the Roundometer.

4. Epoxy: size I and size II
- nominal elevation of the vibrating table in order to properly separate the beads.

**1008.07 Coatings of Glass Beads.**
1. AASHTO M 247 shall be used to determine compliance.
   a. Paint, moisture-proof, section 4.5.
   b. Polyester, 50:50 mix of moisture-proof: floatation, section 4.6, only.

2. Thermoplastic and epoxy as required.