

SIEVE ANALYSIS OF GLASS BEADS

1.0 SCOPE

1.1 This method describes the procedures used to determine the gradation of glass beads used for retroreflective marking purposes in Traffic Paint.

2.0 APPLICABLE DOCUMENTS

2.1 ASTM D1214 Standard test method for sieve analysis of glass spheres

2.2 AASHTO M247-81 Standard specification for glass beads used in traffic paint

3.0 APPARATUS AND PROCEDURE

3.1 The equipment and procedures used are as per those used in the above mentioned publications with the following modifications:

3.1.1 Use sieve sizes of:

- 800 μm
- 630 μm
- 400 μm (used for Roundness test only)
- 315 μm
- 160 μm
- 80 μm

3.1.2 Use a 50 g sample.

4.0 CALCULATION AND REPORT

4.1 Percent Passing (by weight) - Calculate the percent passing by dividing the weight passing each sieve size by the total weight of test sample (sum of all weights retained).

5.0 SPECIFICATIONS

5.1 The spheres shall conform to the following gradation requirements:

Metric Sieve Size μm	For Alkyd Paint System Percent Passing	For Waterborne Paint System Percent Passing
800	100	100
630	90 – 100	75 – 95
315	16 – 38	15 – 35
160	0 – 10	0 – 5
80	0 – 3	