



TECHNICAL DATA SHEET

OZARK MATERIALS, LLC ROADMARKING GLASS BEADS (TYPE 1, 2, 3, 4)

PRODUCT DESCRIPTION

Ozark Materials, LLC Glass Beads are superior quality dropon spheres used to produce high visibility through retroreflectivity of the roadmarking. These beads are clear, durable, and consistent gradation and roundness to provide the performance of today's requirements for the driving public. All glass bead classes meet their respective requirements according to AASHTO M 247 for Type 1, 2, 3, and 4.

ADVANTAGES

- **Meets or exceeds all requirements of the latest edition of AASHTO M 247 Specification**
- **Superior Roundness to provide exceptional reflectivity**
- **High clarity and color to allow more light to refract back to the driver**
- **Properly coated to promote adhesion and floatation of the glass beads with the marking, and to provide longer visible life of the marking**
- **No moisture content allowing beads to flow through your equipment process**
- **Can be applied with gravity or air pressure equipment**

SPECIFICATIONS

AASHTO M 247 Type 1, 2, 3, 4 (latest edition). Able to meet any modifications to AASHTO M 247.

PACKAGING

Available in 50 lb. bags or 2,000 lb. tri-wall containers. Keep bags and beads away from precipitation and standing water.

PREPARATION

Most state entities dictate the gradation size of the bead, roundness, and coating to use. Many performance specifications allow the contractor to choose among various gradation sizes. It is important to understand the desired performance and which bead will provide that reflectivity. Below is a guide to use when attempting to match these glass beads with the desired performance:



APPLICATION

Desired Initial Reflectivity (mcd)	White AASHTO M 249 Thermoplastic	Yellow AASHTO M 249 Thermoplastic	White Waterborne Paint	Yellow Waterborne Paint
Type 1 (10 lbs./100 ft ²)	300	200	300	200
Type 2 (10 lbs./100 ft ²)	350	250	350	250

Double Drop: Type 3 (10 lbs./100 ft ²) Type 1 (6 lbs./100 ft ²)	400+	300+	400+	300+
Double Drop: Type 4 (10 lbs./100 ft ²) Type 1 (6 lbs./100 ft ²)	400+	300+	400+	300+

TECHNICAL DETAILS

Typical Results (modified for various State requirements)

	Type 1	Type 2	Type 3	Type 4
Overall Roundness (%)	>70	>70	>80	>80
(Typical Roundness, %)	>80	>80	>90	>90
Refractive Index	1.50-1.55	1.50-1.55	1.50-1.55	1.50-1.55
Specific Gravity (g/cm ³)	2.4-2.6	2.4-2.6	2.4-2.6	2.4-2.6
Adhesion Coating (Silane)	√	√	√	√
Floatation/Moisture Coating (Silicone)	√	√	√	√
Adhesion Coating (Silane)	√	√	√	√
Heavy Metals (lead, arsenic, antimony)	<200 ppm	<200 ppm	<200 ppm	<200 ppm

Warranty

Ozark Materials, LLC warrants to the purchaser that these productw shall be manufactured without defects. This limited warranty covers replacement material only. The shelf life shall be 1 year from the date of manufacture when stored properly. Excluded from coverage is labor, any damage to the application surface, or any failure of the coating caused other than by defects in the material.