



**Sino-American
Pigment Systems, Inc.**
QUALITY RAW MATERIALS ■ ENVIRONMENTAL TECHNOLOGY

GLASS BEAD FOR TRAFFIC PAINTS (TYPE I, II, & III) – PRODUCTION DESCRIPTION

Description:

- Type I: **Glass Bead for Road Marking:** Improve the road marking line contrary reflection function. When driving at night, the lamp shines on the marking line with glass bead in it, the ray of lamp is reflected back parallel. So the driver can look at the road clearly and drive safely at night.
- Type II: **Glass Bead for Jetting:** Glass bead for jetting has the features of chemical stability, high mechanical intensity and hardness. They can be jetted onto the object surface with compressed air and can be used on compress glass, rubber, plastic, moulds with metal casting or compressing. The jetting balls would help reduce elasticity of the surface materials and increase wearing capacity.
- Type III: **Glass Bead for Grinding:** With the advantages of smooth surface, even size, high hardness, wearable and stable, widely used as disperser, grinding media and filler materials in day, paint, ink and chemical industry.

Applications:

Type I: Appearance: Colorless and transparent ball, no visible bubbles and impurity.
Spherical beads: $\geq 80\%$ ($600 < \text{Sieve size} < 850\mu\text{m}$, spherical beads $\geq 75\%$)
Density: 2.4-2.6g/cm³
Refractive index: $N_d \geq 1.50$
Glass bead composition: The glass bead is made of sodium and calcium. $\text{SiO}_2 > 68\%$

Type II: Appearance: Clean and transparent, no visible bubbles and impurity.
Density: 2.4-2.6g/cm³
Hardness: 6-7
Spherical beads: $\geq 75\%$
 SiO_2 content: $> 70\%$

Type III: Appearance: Clean and transparent, no visible bubbles and impurity.
Specific gravity: 2.4-2.6g/cm³
Hardness: 6-7
Compressive strength: $> 1200\text{N}$

Packaging: Using double-deck package, the inner is polythene film and its thickness is not less than 0.5mm, the outer is plastic woven bag to prevent leak or damp. The net weight of each bag is $25 \pm 0.2\text{kg}$. Using double-deck package, the inner is polythene film and its thickness is not less than 0.5mm, the outer is plastic woven bag to prevent leak or damp. The net weight of each is $1000 \pm 8\text{kg}$.

TYPICAL SPECIFICATION

Type I: Three different beads size distribution according to JT/T 446-2001 Standard of Chinese Traffic Ministry. Products meet international standard including English BS6088、 Korean KS and American AASHTO. Choices of different size glass bead between 50 μ m-1180 μ m according to different functions. (JT/T446-2001 International Standard)

Item	Glass bead size scope(μ m)	Glass bead quality percentage(%)
1 (DROP~ON)	>850	0
	850-600	5-30
	600-300	30-80
	300-106	10-40
	<106	0-5
2 (PREMIX)	>600	0
	600-300	40-90
	300-150	5-60
	<150	0-5
3 (BECKE LINE)	>212	0
	<90	0-4

Comparison table of international standard sieve size and mesh.

Standard sieve size(μ m)	Standard Mesh
1180	16
850	20
600	30
425	40
300	50
212	70
180	80
150	100
106	140
90	170

Type II:

No.	Diameter(μ m)	Corresponding sieve size
1	710-425	25-40
2	425-250	40-60
3	250-150	60-100
4	150-100	100-150
5	100-75	150-180
6	75-50	<180

You can choose different size glass bead between 50 μ m-850 μ m according to different function.

Type III:

No.	diameter(mm)	corresponding sieve size
1	1-2	18-10
2	2-3	10-8
3	3-4	8-6
4	4-5	6-4

You can choose different size glass bead between 1mm-5mm according to different function.