

RI 1.5 Reflective Glass Beads

Technical Data Sheet

Date: Feb 1st, 2016

Description:

Reflective glass beads are designed for night day to have good retro reflective for drivers. Glass beads are used alone or mix normal glass beads in paints and coatings. Glass beads looks like powder and globuar, made by soda lime glass.

Applications:

- Variety of drop-on for reflective road marking.
- Variety of intermix for reflective paint.
- Drop-on for reflective anti-slip road marking.

Equipment

- Screed coating equipment, spray equipment.

Features:

- Light blue transparent glass beads
- Very high roundness via unique technology
- Wide distribution range of sizes from 100μm to 2000μm.
- Stable refractive index and superior retro-reflectivity.
- Reasonable chemical composition and low content of heavy metals.

Package:

- Paper bag, 25 kg (55 lbs)/bag.
- 1000 kg/super bag

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	Item	Virgin Type	Normal Type
1	Density	2.5±0.1 g/cm ³	
2	Mohs Hardness	6.0-6.7 Mohs	
3	Elasticity Modulus	7×10 ⁴ Mpa	
4	Compressive Strength	700-850 Mpa	
5	Softening point	650~720°C	
6	Coefficient of Thermal Expansion	(90~100) ×10 ⁻⁷ /°C(20-350°C)	
7	Specific Enthalpy/Thermal capacity	790~840 J/(kg.K)	
8	Refractive Index	1.51~1.52	
9	Roundness	>90%	>80%
10	Size Range	300-2000um	100-1400um
11	Chemical Composition	SiO ₂ : 70~73%; Al ₂ O ₃ : 0.3~1.4%; CaO: 7~10%; MgO: 3~4.5%; Na ₂ O:11~15%; K ₂ O:0.3~1.0%; Fe ₂ O ₃ : 0.02~0.1%; SO ₃ :0.1~0.4%.	

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Standard and Types:

1. Standards

COUNTRY	STANDAR
China	GB/T24722-2009
Europe	EN1423-1998, EN1424-1998
England	BS6088-1981
USA	MODIFIED AASHTO M247 TYPEI/II/III/IV/V
Japan	JIS R3301
Australia	AS/N2S 2007; AS/N2S 2007 D
Taiwan	CNS4342
Korea	KSL2521

2. Retro-reflectivity

According to the retroreflective performance of glass beads under specific conditions, glass beads can be divided into three types: low retroreflective glass beads (LR), medium retroreflective glass beads (MR), and high retroreflective glass beads (HR). The retroreflective coefficient is shown in below table.

Type	Retroreflectivity (mcd • m ⁻² • lx ⁻¹)
Low Retroreflective (LR)	LR < 300
Medium Retroreflective (MR)	300 ≤ MR < 500
High Retroreflective (HR)	HR ≥ 500

3. Coating

According to the surface treatment of glass beads, it can be divided into coated glass beads and uncoated glass beads. The coating requirements are customized according to customer requirements.

4. Size Proportion

According to the different particle size distribution of glass beads, glass beads can be divided into six types: A, B, C, D, E, and F. The particle size distribution is shown in below table.

Please be aware that above are approximate reference values, if you need approval specifications or more information please contact us.

Type	Size / μ m	Size Proportion /%
A	$S > 850$	0
	$600 < S \leq 850$	0-5
	$300 < S \leq 600$	40-80
	$180 < S \leq 300$	10-50
	$S \leq 180$	0-5
B	$S > 1180$	0
	$850 < S \leq 1180$	0-10
	$600 < S \leq 850$	15-50
	$300 < S \leq 600$	35-75
	$180 < S \leq 300$	0-15
	$S \leq 180$	0-5
C	$S > 1400$	0
	$1180 < S \leq 1400$	0-5
	$850 < S \leq 1180$	5-20
	$425 < S \leq 850$	65-95
	$S \leq 425$	0-5
D	$S > 1700$	0
	$1400 < S \leq 1700$	0-5
	$1180 < S \leq 1400$	0-20
	$1000 < S \leq 1180$	40-80
	$850 < S \leq 1000$	5-40
	$S \leq 850$	0-5
E	$S > 2000$	0
	$1700 < S \leq 2000$	0-5
	$1400 < S \leq 1700$	0-20
	$1180 < S \leq 1400$	40-80
	$1000 < S \leq 1180$	5-40
	$S \leq 1000$	0-5
F	$S > 2350$	0
	$2000 < S \leq 2350$	0-5
	$1700 < S \leq 2000$	0-20
	$1400 < S \leq 1700$	40-80
	$1180 < S \leq 1400$	5-40
	$S \leq 1180$	0-5