

Technical Glass *Beads*

PRECIOSA

Technical Glass Beads

PRECIOSA Traditional Czech Glass™ technical glass beads in diameters ranging from 1.5 – 10 mm are especially used in technical production (hence their name) for grinding and other technical uses, particularly because of their physical properties – the composition of the high-quality glass is ideal thanks to its neutral and hygienic properties.

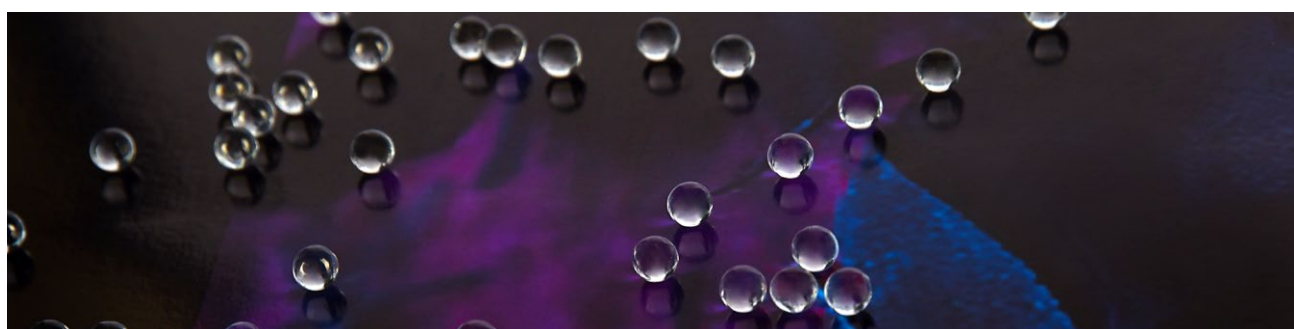
Size parameters

Ø [mm]	± [mm]	Crushing strenght [N]	Beads in 1 kg [pcs / kg]	Contact surface of 1 kg [cm ²]	Beads in 1 l [kg / 1l]
1.5	0.2	600	226 354	15 992	1 545
2.0	0.2	900	95 493	11 994	1 550
2.5	0.2	1 100	48 492	9 595	1 560
3.0	0.2	1 600	28 294	7 995	1 570
3.5	0.3	1 800	17 818	6 854	1 565
4.0	0.3	2 300	11 937	5 997	1 565
4.5	0.3	2 400	8 388	5 334	1 555
5.0	0.3	2 600	6 112	4 798	1 555
6.0	0.3	3 600	3 537	3 998	1 540
7.0	0.3	3 800	2 227	3 426	1 520
8.0	0.4	5 200	1 492	2 999	1 505
9.0	0.4	5 700	1 048	2 665	1 510
10.0	0.5	6 200	764	2 399	1 495

Chemical composition in %

(leadfree glass composition)

SiO ₂	61 - 67
Al ₂ O ₃	3 - 8
CaO	5 - 10
MgO	0,5 - 3
Na ₂ O	10 - 18
B ₂ O ₃	1 - 5



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Physical and Chemical Characteristic

Specific weight	2 500 ± 40 kg/m ³
Coefficient of thermal extension	(9.2 ± 0.4) · 10 ⁻⁶ K ⁻¹
Littleton softening point	TL = 670 ± 10°C
Bulk weight	1 485 kg/m ³
Hardness Mohs	6
Microhardness Vickers and Rockwell	970 - 1 018 kp/cm ²
Elasticity module	7.75 Mpa
Young module of elasticity E	78 - 85 Gpa
Hydrolytic class	HGB 3
Acidic class according to DIN 12116	III.
Alkaline class according to ČSN ISO 695	A - 1 class

Areas of application:

These high quality polished glass beads are ideally suited and widely used for grinding of pigments in mills operating both vertically and horizontally.

The specific weight of these technical beads makes them particularly suitable for applications in mills which process low and medium viscosity mill bases. The technology used in our production ensures almost perfect spherical shape and precisely controlled diameters.

The beads are treated thermally and chemically to ensure high polish and extreme impact and wear resistance. It follows that balls produced to such a standard cause the minimum of wear to the grinding mill surfaces.



PRECIOSA Traditional Czech Glass

A member of the Preciosa Group

Preciosa Group is a global leader in products manufactured from crystal. From the world famous Czech Beads and Crystal Components used in fashion industry, to tailor made Lighting projects for luxury hotels, royal palaces and yachts, the true craftsmanship of crystal production has been present in Bohemia since 16th century.

Preciosa-Ornela.com