



PRECISION SPHERES

Sizes: Depending on the material, typical sizes are:

Ceramic	0.4mm to 120mm diameter
Glass	0.3mm to 120mm diameter
Sapphire and ruby	0.15mm to 12.5mm diameter
Plastic	1.5mm to 150mm diameter
Metal	We supply only large metal balls, up to 150mm diameter

Accuracy: General guidance on tolerances is given below

AFBMA grade	DIAMETER TOLERANCE - Microns	SPHERICITY - Microns
3	± 0.5	0.075
4	± 0.5	0.100
5	± 1	0.125
10	± 2.5	0.250
15	± 2.5	0.375
25	± 2.5	0.625
50	± 5	1.250
100	± 10	2.500

A common specification for smaller glass and ceramic balls is grade 25

Discuss your application and accuracy requirements with our sales team.

Materials:	Glass	Black glass
		Borosilicate glass
		Crystal glass
		Optical glass (the balls can be anti reflection coated)
		Quartz glass
		Red glass
		Soda lime glass



PRECISION SPHERES (Continued)

Materials: (Continued)

Ceramics:	Alumina Silicon nitride Zirconia
Crystals:	Cubic zirconia Ruby (pink sapphire) Sapphire (the balls can be anti reflection coated) YAG
Other:	Please ask