

STANDARD STOCK SIZES OF SAPPHIRE-, RUBY-, GLASS- & CERAMIC TYPE A99 BALLS FOR INDUSTRIAL APPLICATIONS

SAPPHIRE + RUBY		GLASS		CERAMIC-A99	
Ø INCH	Ø MM	Ø INCH	Ø MM	Ø INCH	Ø MM
.005			1.00		1.50
	0.15	3/64"		1/16"	
	0.20		1.20		
	0.25		1.25		2.00
	0.30		1.50	3/32"	
	0.40	1/16"			2.50
	0.50-1.00		1.75		3.00
3/64"			2.00	1/8"	
	1.20	3/32"			3.50
	1.25		2.50		
	1.50		3.00	5/32"	
1/16"		1/8"			4.00
	1.75		3.50		4.50
	2.00	5/32"		3/16"	
3/32"			4.50		5.00
	2.50	3/16"		7/32"	
	3.00		5.00		
1/8"		7/32"			6.00
	3.50		6.00	1/4"	
5/32"		1/4"			6.50
	4.00		6.50		7.00
	4.50		7.00	5/16"	
3/16		9/32"			8.00
	5.00		7.50	11/32"	
7/32		5/16"			9.00
	6.00		8.00		9.50
1/4"			8.50	3/8"	
	6.50	11/32"			10.00
	7.00		9.00		11.00
9/32"			9.50	7/16"	
	7.50	3/8"			12.00
5/16			10.00	1/2"	
	8.00		11.00		13.00
	8.50	7/16"			14.00
	9.00		12.00	9/16"	
	9.50	1/2"			15.00
3/8"				5/8"	
	10.00				16.00
	11.00				17.00
7/16"					18.00
	12.00				19.00
1/2"				3/4"	
					20.00
					25.00
				1"	
					30.00
				1.25"	

Maximum diameters for: RUBY .590"
 SAPPHIRE 20 mm
 GLASS .500"
 CERAMIC A99 2"

For special glass spheres see page 5.

SPECIFICATIONS: SANDOZ GLASS BALLS

	Black	Crystal & pyrex	Red
Specific Gravity (Density)*	3.17 + -.09	3.2 & 2.23	2.56 + -.1
Hardness	537 Vickers	545 Vickers	586 Vickers
Compressive Strenght	7910 kg/cm ²	7910 kg/cm ²	9327 kg/cm ²
Module of Elasticity	5.85 10 ⁶ kg/cm ²	5.9 10 ⁶ kg/cm ²	6.7 10 ⁶ kg/cm ²
Temp. Expansion Coefficient	10.75·10 ⁻⁶ /°C	10.8 10 ⁻⁶ /°C	10.0 10 ⁻⁶ /°C
Max. Temp. Utilization	261°C	258°C	280°C

* Other densities upon request.

