

Common applications

DC motors • Magnetic separators • MRI • Automotive sensors • Craft projects • Refrigerator magnets • Holding

Machining and tolerances

Ceramic magnets are hard and brittle. Grinding must be done with a diamond wheel, and it's best done prior to magnetization. Standard tolerances for ceramic magnet dimensions are +/- .005" for ground dimensions and +/- 2% of feature size for as sintered dimensions. Because of their brittleness these magnets will not withstand impact or flexing. We recommend they not be used for structural purposes. Ceramic magnets are chemically inert non-conductors, which is a benefit in many applications. However, this feature eliminates the use of the EDM process to produce samples or special shapes.

Temperature constraints and methods of magnetization

Maximum operating temperature for ceramic magnets is 250°C. Ceramic magnets experience magnetic losses at elevated temperatures, but the losses are recovered upon returning to normal ambient temperature. However, operating in very cold temperatures (-20°C) can result in losses of magnetic strength unless the circuit has been designed for such extremes. Magnetization: anisotropic ceramic magnets must be magnetized in the direction of orientation, which is normally the same as the direction of pressing.

Added value services

Adams stocks a variety of square and rectangular blocks, discs and rings in ceramic grades 1, 5 & 8. We will gladly stock other configurations for specific customer requirements. We'll cut and grind standard sizes to meet your specific requirements. We can also produce stock and custom magnetic assemblies using ceramic magnets.

Call ADAMS for everything magnetic!
1-800-763-4795



Discs

Diameter	Thickness	Grade	Item#
0.312	0.125	5	30B0001
0.500	0.125	1	30B0004
0.500	0.197	5	30B0072
0.500	0.250	1	30B0007
0.709	0.197	5	30B0009
0.875	1.000	8	30B0011
1.000	0.250	8	30B0054
1.146	0.331	8	30B0029

Rings (Grade 5)

OD	ID	Thickness	Item#
1.250	0.375	0.187	30A0006
1.250	0.709	0.200	30A0007
1.750	0.866	0.275	30A0009
2.100	0.800	0.276	30A0022
2.375	1.000	0.280	30A0010
2.820	1.250	0.330	30A0014
3.375	1.280	0.425	30A0020
4.540	1.750	0.400	30A0021

Rectangles (Grade 5)

Thickness	Width	Length	Item#
0.187	0.750	1.00w/ 0.187 hl	30C0005
0.190	0.230	0.870	30C0014
0.219	0.750	2.500	30C0057
0.250	0.375	2.000	30C0042
0.375	0.875	1.750	30C0011
0.387	0.875	1.875	30C0012

Blocks (Grade 8)

Thickness	Width	Length	Item#
0.187	0.875	1.870	30C0157
0.350	1.250	2.125	30C0045
0.375	4.000	4.000	30C0218
0.500	2.000	3.000	30C0170
0.500	4.000	6.000	30C0018
0.750	4.000	6.000	30C0026
1.000	2.000	3.000	30C0190
1.000	2.000	6.000	30C0126
1.000	3.000	6.000	30C0144
1.000	4.000	6.000	30C0035
1.000	3.500	10.625	30C0036

Notes: Direction of magnetization is through the thickness. Dimensions are in inches. Many other sizes, shapes and magnetization types are available. Please call us if you don't see what you're looking for in this brief listing. 1-800-763-4795