

Specifications

These countersunk ring magnets are 0.500 inch (12.7mm) outside diameter, 0.150 inch (3.8mm) inside diameter and 0.125 inch (3.2mm) thick. They are magnetized through the thickness. They are composed of grade 40 neodymium iron boron magnetic material and are plated in nickel-copper-nickel for a shiny corrosion resistant finish. Their individual pull force is approximately 3 lbs. Maximum working temperature is 176 F (80 C).



Part Number	NSN0590
Imperial Dimensions	0.5 inch outside diameter x 0.15 inch inside diameter x 0.125 inch thick
Metric Dimensions	12.7mm outside diameter x 3.81mm inside diameter x 3.175mm thick
Material	Sintered Neodymium-Iron-Boron (NdFeB)
Shape	Ring
Plating	Ni-Cu-Ni (Nickel)
Magnetization Direction	Thickness
Grade	N40
Pull Force	3.2[1451]
Surface Field	3531
Packaging	Magpak Tube
UPC	897970000907
Magnet Quantity	12
Brand	Magcraft
Maximum Operating Temperature	80 Deg C (176 Deg F)
Maximum Energy Product Bhmax (MGOe (kJ/m3))	38-41 [302-326]
Remanent Flux Density Br (kG (T))	12.5-12.8 [1.25-1.28]
Coercivity HcB (kOe (kA/m))	≥11.3 [≥923]
Intrinsic Coercivity HcJ (kOe (kA/m))	≥12.0 [≥995]
Dimensional Tolerance	+/-0.005"
Density ρ (g/cm3)	≥7.45
Compression Strength (Mpa)	600-1200
Bending Strength (Mpa)	150-380
Vickers Hardness (HV)	460-660
Recoil Permeability (μrec)	1.05
Electrical Resistance (Ω·mm2/m)	1.25-1.55
Curie Temperature Tc (°C)	310
Thermal Expansion Coefficient 100°C // (x10 ⁻⁶ /K)	6
Thermal Expansion Coefficient 100°C ⊥ (x10 ⁻⁶ /K)	-1

