

## Magnet Material Comparison Chart

(not all magnet materials are created equal)

	FLEXIBLE FERRITE	HARD FERRITE	ALNICO	BONDED NdFeB (injection molded)	BONDED NdFeB (compression)	SmCo	SINTERED NdFeB
							
RELATIVE MAGNET STRENGTH	Lowest	Moderate	Moderate	Moderate	Average	High	Highest
(BH) max	< 2 MGOe	1-5 MGOe	5-9 MGOe	4-6 MGOe	6-12 MGOe	18-32 MGOe	28-55 MGOe
RESISTANCE TO DEMAG (COERCIVITY)	Easily Demagnetized	Easily Demagnetized	Easiest to Demagnetize	Average	Average	High Resistance	High Resistance
EASE OF MAGNETIZATION	Easy to Magnetize	Easy to Magnetize	Easiest to Magnetize	Difficult to Magnetize	Difficult to Magnetize	Difficult to Magnetize	Difficult to Magnetize
CORROSION RESISTANCE	No Coating Required	No Coating Required	No Coating Required	No Coating Required	Some Applications May Require a Coating	No Coating Required	Typically Requires Ni-Cu-Ni or Epoxy Coating
MAX OPERATING TEMPERATURE	100° C 212° F	250° C 480° F	530° C 980° F	150° C 302° F	150° C 302° F	300° C 575° F	220° C 430° F
UNIQUE ASPECTS	Typically Multi-Pole	Low Raw Material Cost	Consistent Flux Over Wide Range of Temps	Complex Shapes	Machinable	Good Thermal Performance	Highest Energy Product
RAW MATERIAL COST	Low Cost	Most Cost Effective	Average	Average	Average	Highest	High Cost
MANUFACTURED IN USA?	Yes	No	Yes	Yes	Yes	Yes	No
ALSO KNOWN AS	Magnetic Rubber	Ferrite or Ceramic	Cast or Sintered Alnico	Plastic Bonded	Compression Bonded or Compression Molded	Fully Dense SmCo	Fully Dense Neo

Key: Below Average or Lowest      Average      Desirable or Highest