

N52 Grade Sintered Neodymium-Iron-Boron Magnets

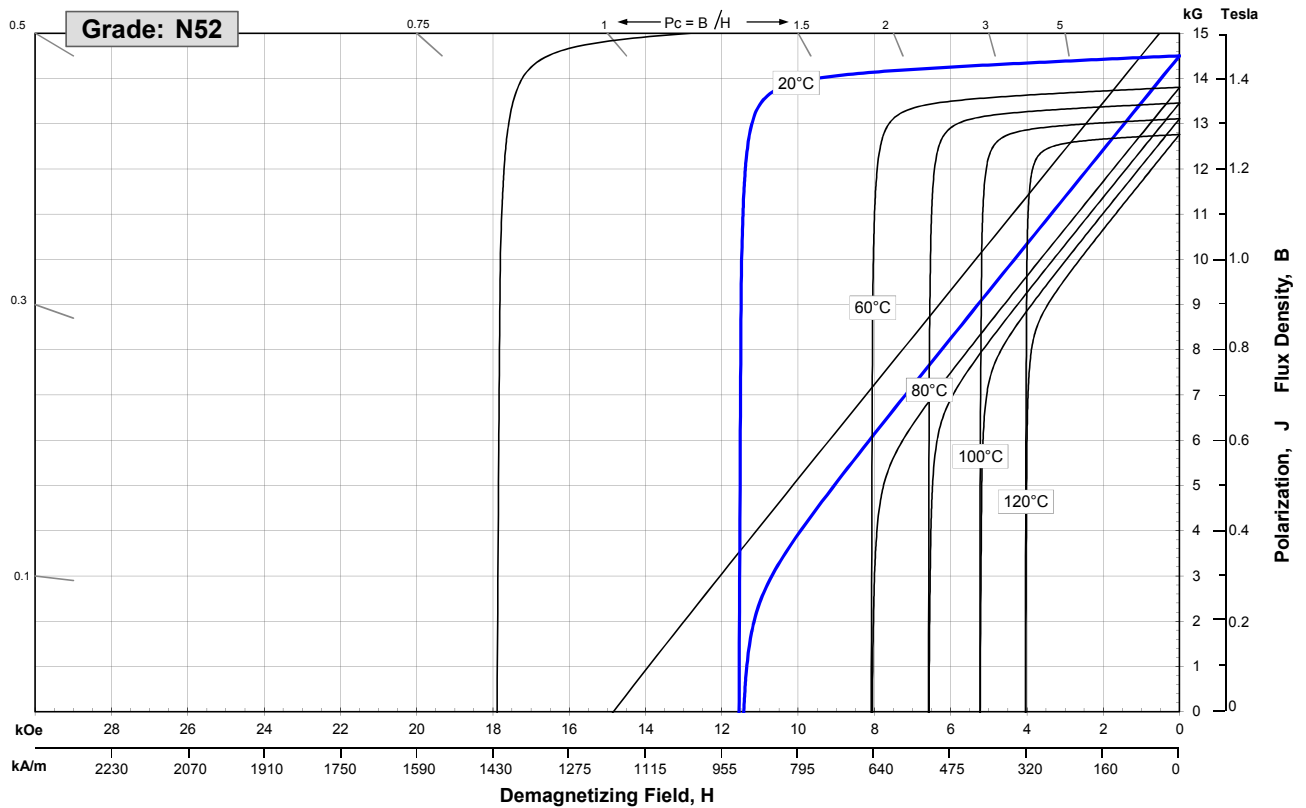
These are also referred to as "Neo" or NdFeB magnets. They offer a combination of high magnetic output at moderate cost. Please contact ALB for additional grade information and recommendations for protective coating. Assemblies using these magnets can also be provided.

Characteristic	Units	Magnetic Properties		
		min.	nominal	max.
Br , Residual Induction	Gauss	14,200	14,500	14,800
	mT	1420	1450	1480
H_{cB} , Coercivity	Oersteds	10,500	12,300	14,100
	kA/m	836	979	1122
H_{cJ} , Intrinsic Coercivity	Oersteds	11,000		
	kA/m	876		
BH_{max} , Maximum Energy Product	MGOe	49	51	53
	kJ/m ³	390	406	422

Characteristic	Units	Thermal Properties	
		C //	C ⊥
Reversible Temperature Coefficients ⁽¹⁾			
of Induction, α(Br)	%/°C		-0.120
of Coercivity, α(H _{cj})	%/°C		-0.750
Coefficient of Thermal Expansion ⁽²⁾	ΔL/L per °C×10 ⁻⁶	7.5	-0.1
Thermal Conductivity	W / (m • K)	7.6	
Specific Heat ⁽³⁾	J / (kg • K)	460	
Curie Temperature, T _c	°C	310	
Other Properties			
Flexural Strength	psi	41,300	
	MPa	285	
Density	g/cm ³	7.5	
Hardness, Vickers	Hv	620	
Electrical Resistivity, ρ	μΩ • cm	180	

Notes: (1) Coefficients measured between 20 and 60 °C
(2) Between 20 and 200 °C
(3) Between 20 and 140 °C

Demagnetisation Curves



1 kA/m = 12.566 Oe 1 kOe = 79.577 kA/m

Notes: The material data and demagnetization curves shown above represent typical properties that may vary due to product shape and size. Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.

