

**N50 Grade Sintered Neodymium-Iron-Boron Magnets**

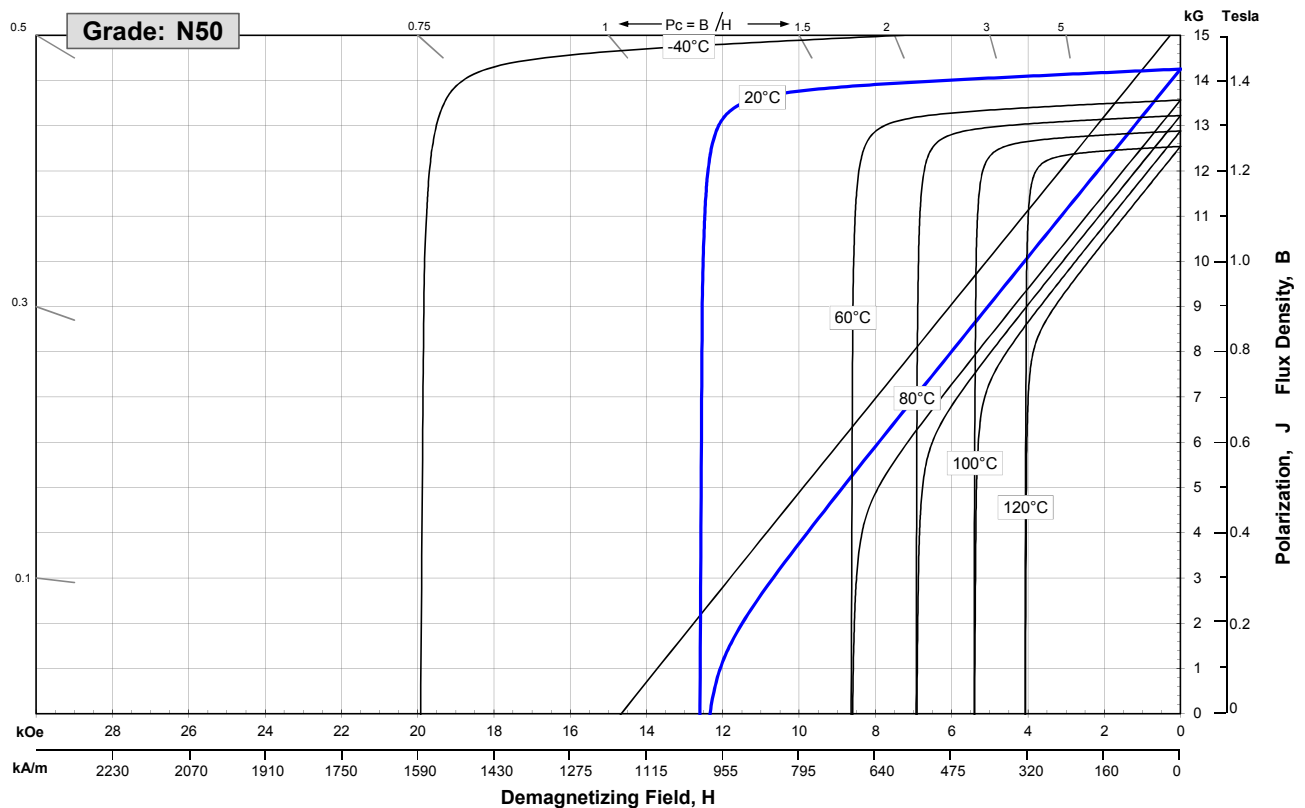
These are also referred to as "Neo" or NdFeB magnets. They offer a combination of high magnetic output at moderate cost. Please contact ALB for additional grade information and recommendations for protective coating. Assemblies using these magnets can also be provided.

Characteristic	Units	Magnetic Properties		
		min.	nominal	max.
<b>Br</b> , Residual Induction	Gauss	13,900	14,250	14,600
	mT	1390	1425	1460
<b>H<sub>CB</sub></b> , Coercivity	Oersteds	10,500	12,250	14,000
	kA/m	836	975	1114
<b>H<sub>CJ</sub></b> , Intrinsic Coercivity	Oersteds	12,000		
	kA/m	955		
<b>BHmax</b> , Maximum Energy Product	MGOe	47	49	51
	kJ/m <sup>3</sup>	374	390	406

Characteristic	Units	Thermal Properties	
		C //	C ⊥
Reversible Temperature Coefficients <sup>(1)</sup>			
of Induction, α(Br)	%/°C		-0.120
of Coercivity, α(Hcj)	%/°C		-0.750
Coefficient of Thermal Expansion <sup>(2)</sup>	ΔL/L per °C x 10 <sup>-6</sup>	7.5	-0.1
Thermal Conductivity	W / (m · K)	7.6	
Specific Heat <sup>(3)</sup>	J / (kg · K)	460	
Curie Temperature, Tc	°C	310	
Other Properties			
Flexural Strength	psi	41,300	
	MPa	285	
Density	g/cm <sup>3</sup>	7.5	
Hardness, Vickers	Hv	620	
Electrical Resistivity, ρ	μΩ · cm	180	

Notes: (1) Coefficients measured between 20 and 80 °C  
 (2) Between 20 and 200 °C  
 (3) Between 20 and 140 °C

**Demagnetisation Curves**



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.

