

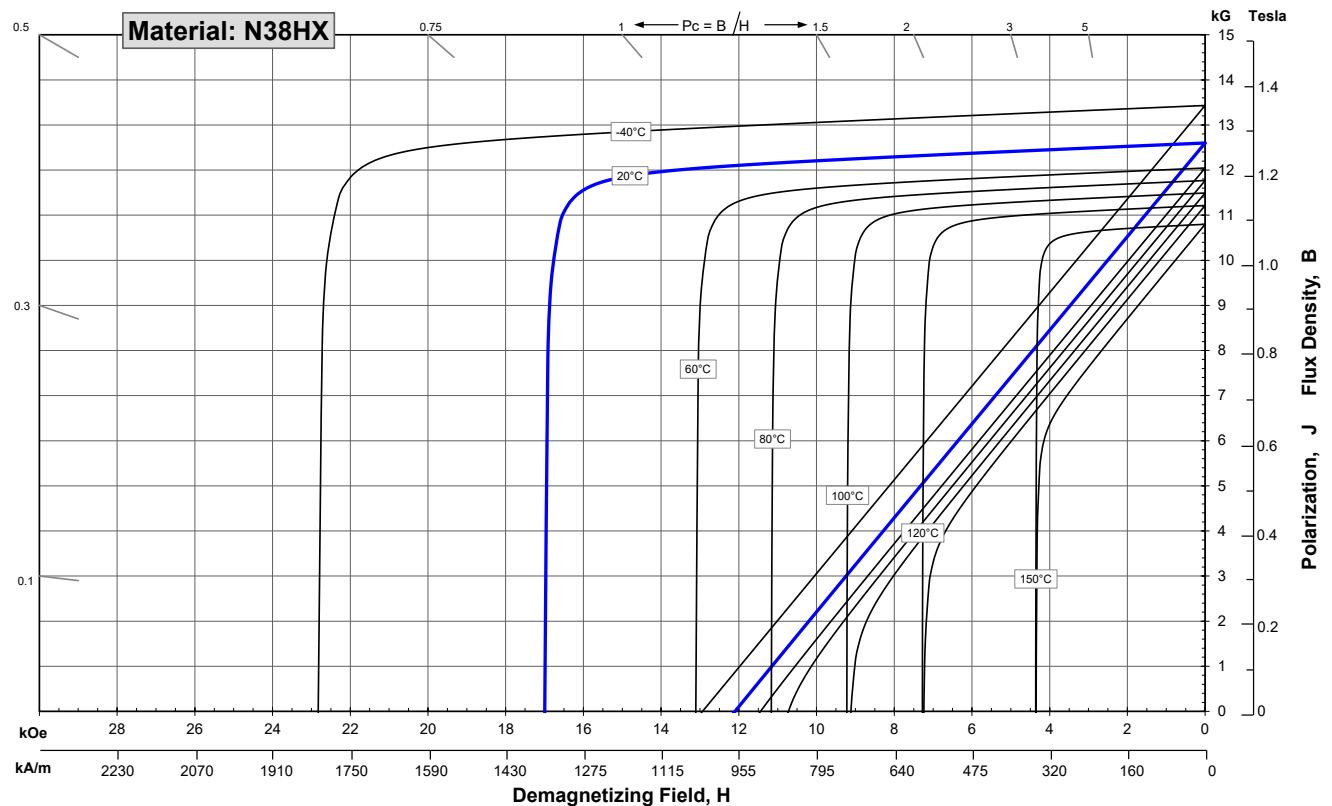
Sintered Neodymium-Iron-Boron Magnets

These are also referred to as "Neo" or NdFeB magnets. They offer a combination of high magnetic output at moderate cost. Please contact Arnold 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	12,200	12,600	13,000
	mT	1220	1260	1300
H_{cB} , Coercivity	Oersteds	11,300	11,850	12,400
	kA/m	899	943	987
H_{cJ} , Intrinsic Coercivity	Oersteds	17,000		
	kA/m	1,353		
BH_{max} , Maximum Energy Product	MGOe	36	39	41
	kJ/m ³	287	307	326

Thermal Properties	Characteristic	Units	C // C ⊥	
	Reversible Temperature Coefficients ⁽¹⁾			
	of Induction, α(Br)	%/°C	-0.11	
	of Coercivity, α(Hcj)	%/°C	-0.57	
	Coefficient of Thermal Expansion ⁽²⁾	ΔL/L per °Cx10 ⁻⁶	7	-1
	Thermal Conductivity	kcal/mhr°C	5.3	5.8
	Specific Heat ⁽³⁾	cal/g°C	0.11	
	Curie Temperature, Tc	°C	330	
Other Properties	Flexural Strength	psi	41,300	
		MPa	285	
	Density	g/cm ³	7.6	
	Hardness, Vickers	Hv	620	
	Electrical Resistivity, ρ	μΩ • cm	150 // 130 ⊥	

Notes: (1) Coefficients measured between 20 and 120 °C
(2) Between 20 and 200 °C. Values are typical and can vary.
(3) Between 20 and 140 °C



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.

Demagnetization curves show nominal Br and minimum HcJ.

Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications.

Additional grades are available. Please contact the factory for information.