

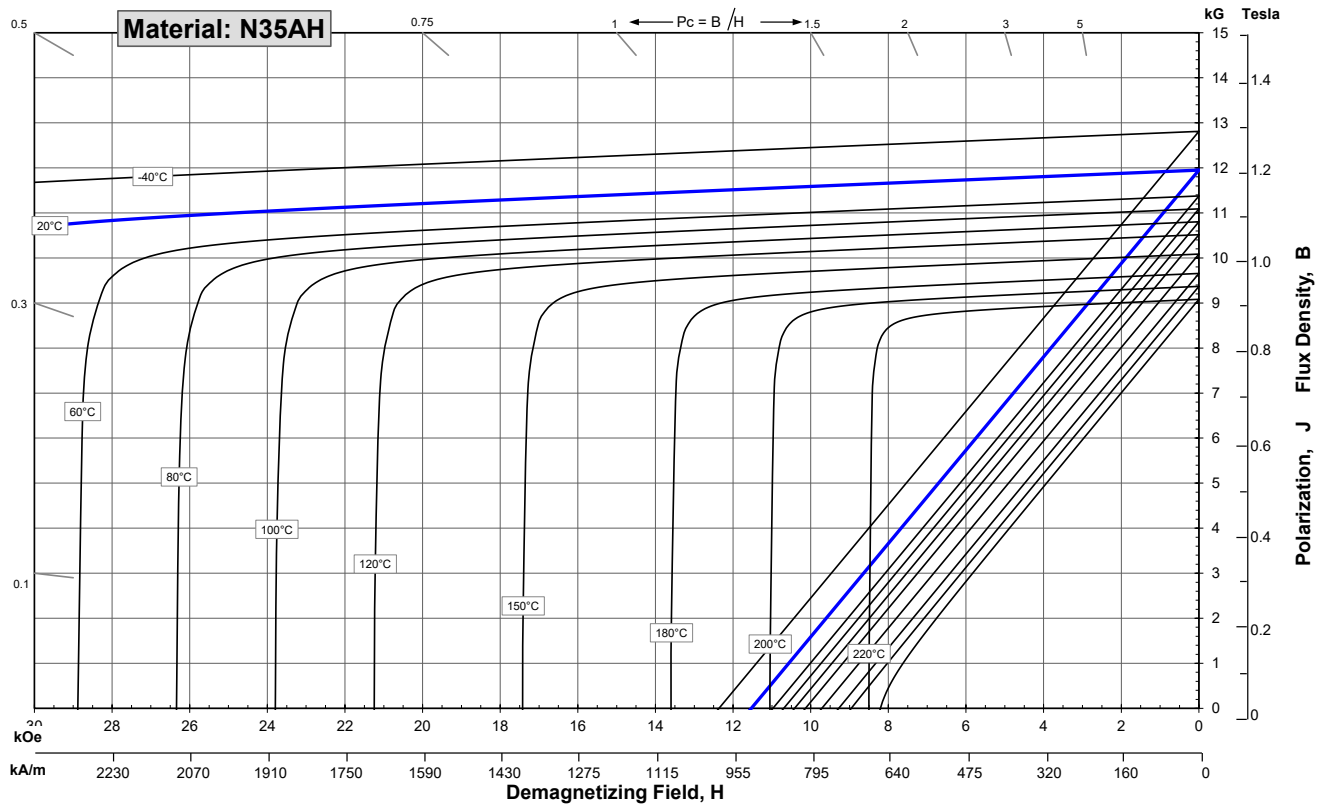
Sintered Neodymium-Iron-Boron Magnets

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	11,700	11,950	12,200
	mT	1170	1195	1220
H_{cB} , Coercivity	Oersteds	907	6,300	11,700
	kA/m	883	501	931
H_{cJ} , Intrinsic Coercivity	Oersteds	34,000		
	kA/m	931		
BH_{max} , Maximum Energy Product	MGOe	33	34	35
	kJ/m ³	263	269	275

Characteristic	Units	Thermal Properties		
		C //	C ⊥	
Reversible Temperature Coefficients ⁽¹⁾				
	of Induction, α(Br)	%/°C	-0.12	
	of Coercivity, α(H _{cj})	%/°C	-0.38	
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	460		
Curie Temperature, T _c	°C	310		
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 220 °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 H_{cj}.** Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.