

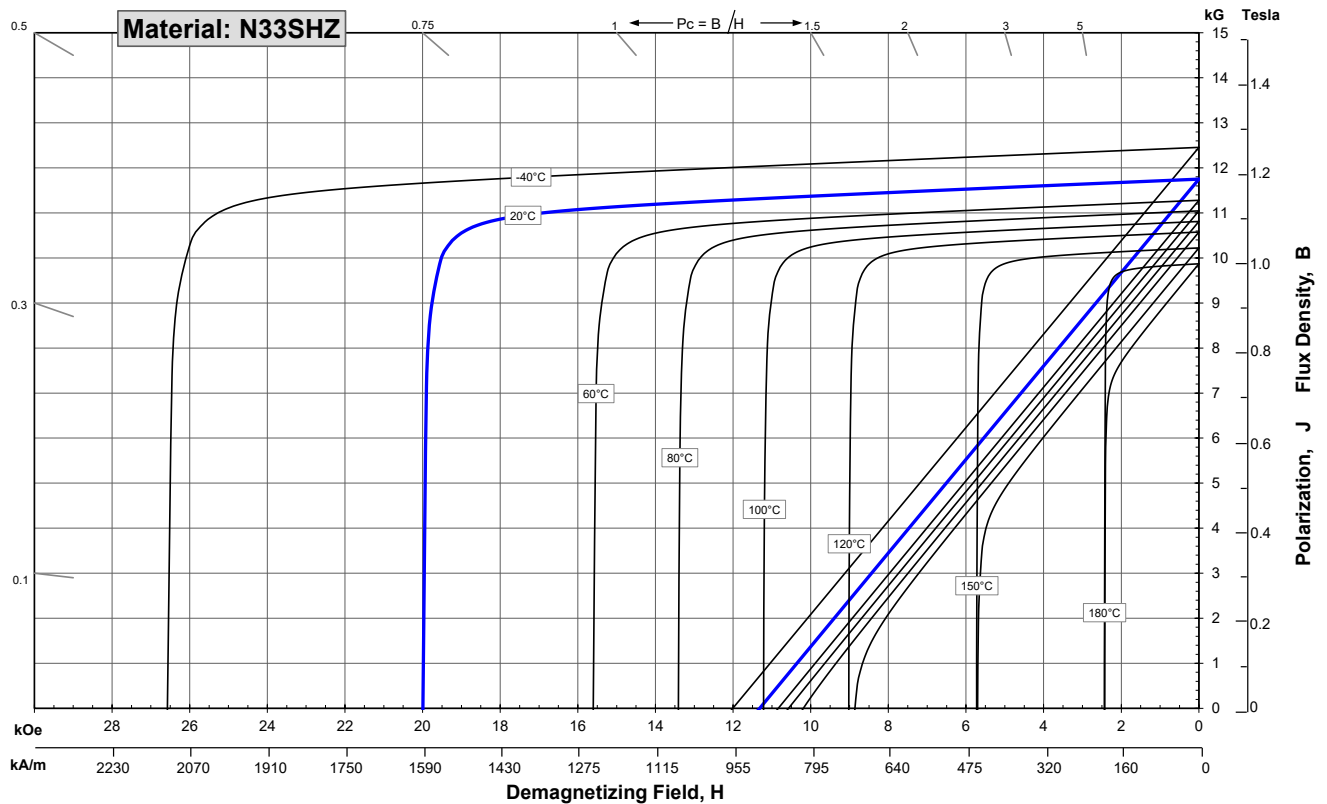
Sintered Neodymium-Iron-Boron Magnets

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	11,300	11,750	12,200
	mT	1130	1175	1220
H_{cB} , Coercivity	Oersteds	10,600	11,150	11,700
	kA/m	844	887	931
H_{cJ} , Intrinsic Coercivity	Oersteds	20,000		
	kA/m	1,592		
BH_{max} , Maximum Energy Product	MGOe	31	34	36
	kJ/m ³	247	267	287

Characteristic	Units	Thermal Properties	
		C //	C ⊥
Reversible Temperature Coefficients ⁽¹⁾			
	of Induction, α(Br)	%/°C	-0.1
	of Coercivity, α(H _{cj})	%/°C	-0.55
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, T _c	°C	350	
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 150 °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.