

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.

Magnetic Properties	Characteristic	Units	min.	nominal	max.
	Br , Residual Induction	Gauss	10,800	11,250	11,700
		mT	1080	1125	1170
	H_{cB} , Coercivity	Oersteds	10,200	10,700	11,200
		kA/m	812	852	891
	H_{cJ} , Intrinsic Coercivity	Oersteds	30,000		
		kA/m	2,388		
	BH_{max} , Maximum Energy Product	MGOe	28	31	33
		kJ/m ³	223	243	263

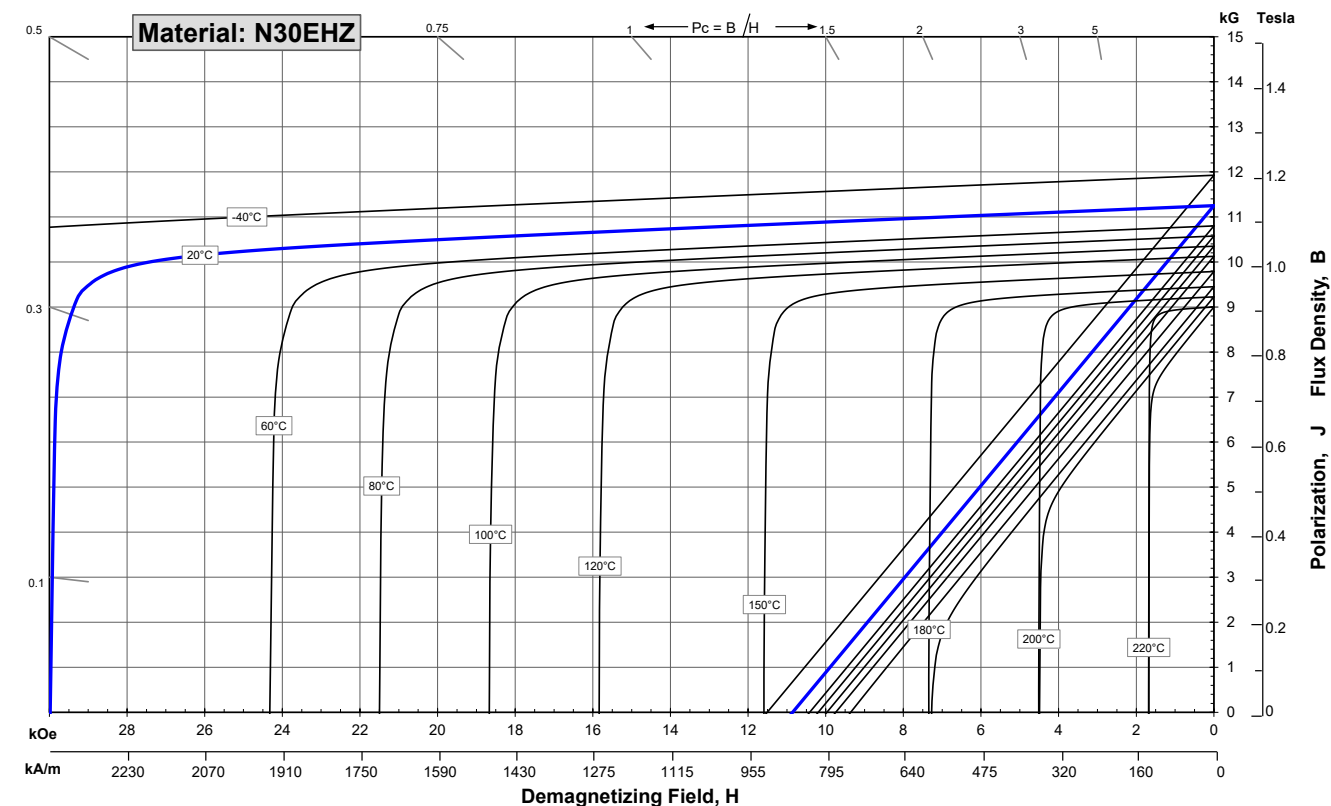
Thermal Properties	Characteristic	Units	C //	C ⊥
	Reversible Temperature Coefficients ⁽¹⁾			
	of Induction, α(Br)	%/°C		-0.1
	of Coercivity, α(H _{cj})	%/°C		-0.47
	Coefficient of Thermal Expansion ⁽²⁾	ΔL/L per °C x 10 ⁻⁶	7	-1
	Thermal Conductivity	kcal/mhr°C	5.3	5.8
	Specific Heat ⁽³⁾	cal/g°C		0.11
	Curie Temperature, T _c	°C		350
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 200 °C

(2) Between 20 and 200 °C. Values are typical and can vary.

(3) Between 20 and 140 °C



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.