

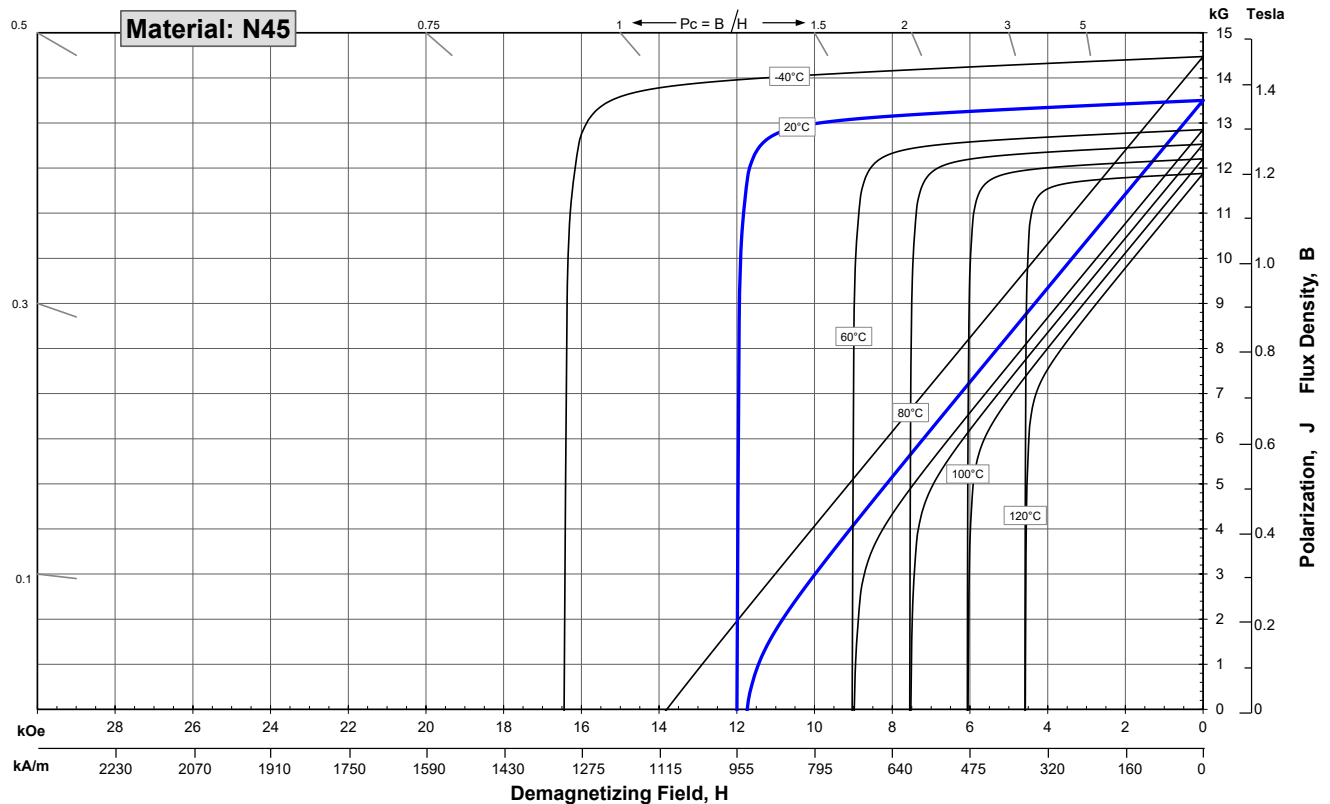
## Sintered Neodymium-Iron-Boron Magnets

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.
	<b>Br</b> , Residual Induction		Gauss	13,200	13,500
		mT	1320	1350	1380
<b>H<sub>cB</sub></b> , Coercivity		Oersteds	10,800	12,000	13,200
		kA/m	860	955	1050
<b>H<sub>cJ</sub></b> , Intrinsic Coercivity		Oersteds	12,000		
		kA/m	955		
<b>BHmax</b> , Maximum Energy Product		MGOe	42	44	46
		kJ/m <sup>3</sup>	334	350	366

Thermal Properties	Characteristic	Units	C //	C ⊥
	Reversible Temperature Coefficients <sup>(1)</sup>	of Induction, α(Br)	%/°C	
of Coercivity, α(H <sub>cj</sub> )		%/°C		-0.62
Coefficient of Thermal Expansion <sup>(2)</sup>		ΔL/L per °Cx10 <sup>-6</sup>	7	-1
	Thermal Conductivity	kcal/mhr°C	5.3	5.8
Specific Heat <sup>(3)</sup>		cal/g°C	0.11	
Curie Temperature, T <sub>c</sub>		°C	310	
Other Properties	Flexural Strength	psi	41,300	
		MPa	285	
	Density	g/cm <sup>3</sup>	7.6	
	Hardness, Vickers	Hv	620	
	Electrical Resistivity, ρ	μΩ • cm	150 // 130 ⊥	

Notes: (1) Coefficients measured between 20 and 80 °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 Hci.** Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.