

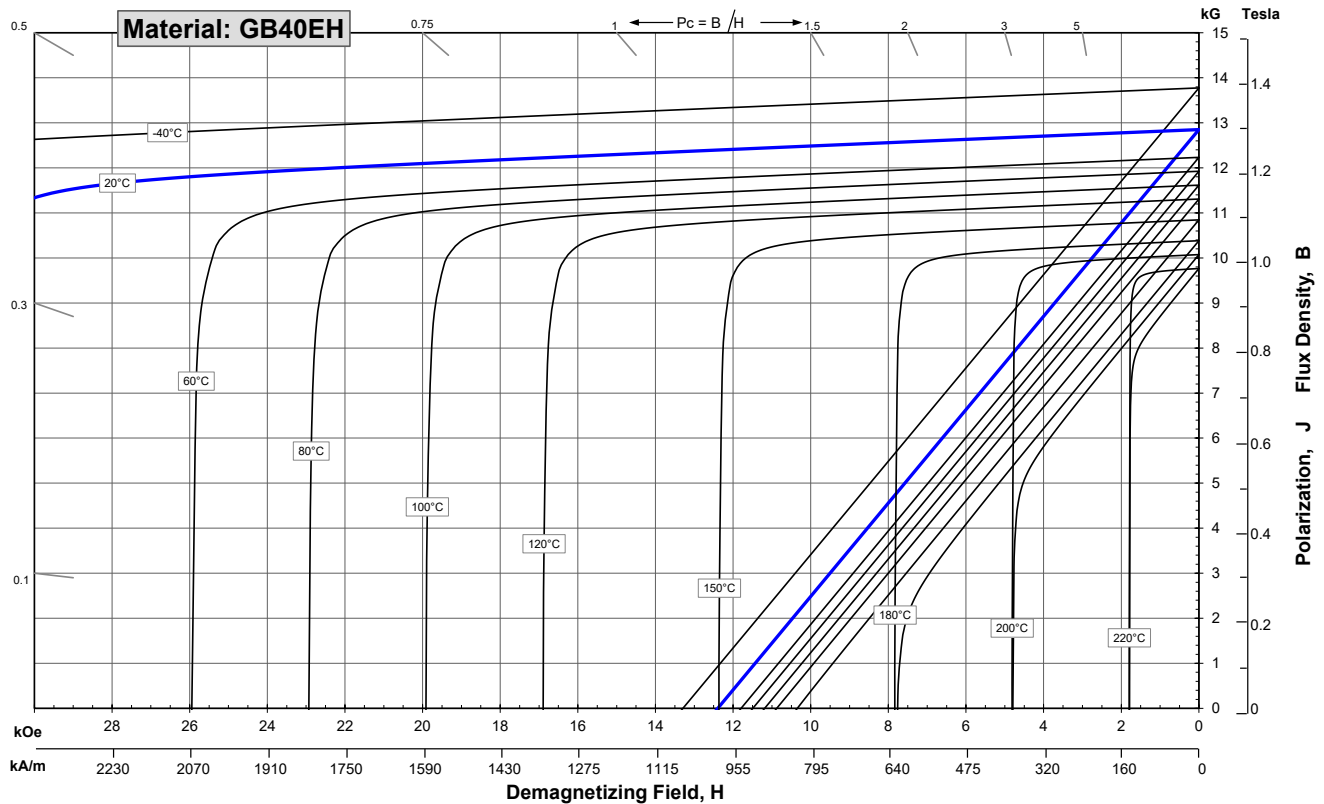
## Sintered Neodymium-Iron-Boron Magnets

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.
<b>Br</b> , Residual Induction	Gauss	12,500	12,850	13,200
	mT	1250	1285	1320
<b>H<sub>cB</sub></b> , Coercivity	Oersteds	11,500	12,050	12,600
	kA/m	915	959	1003
<b>H<sub>cJ</sub></b> , Intrinsic Coercivity	Oersteds	32,000		
	kA/m	2,547		
<b>BHmax</b> , Maximum Energy Product	MGOe	38	40	42
	kJ/m <sup>3</sup>	302	318	334

Characteristic	Units	Thermal Properties	
		C //	C ⊥
Reversible Temperature Coefficients <sup>(1)</sup>			
	of Induction, α(Br)	%/°C	-0.12
	of Coercivity, α(H <sub>cj</sub> )	%/°C	-0.47
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 200 °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<sub>cj</sub>.** Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.