

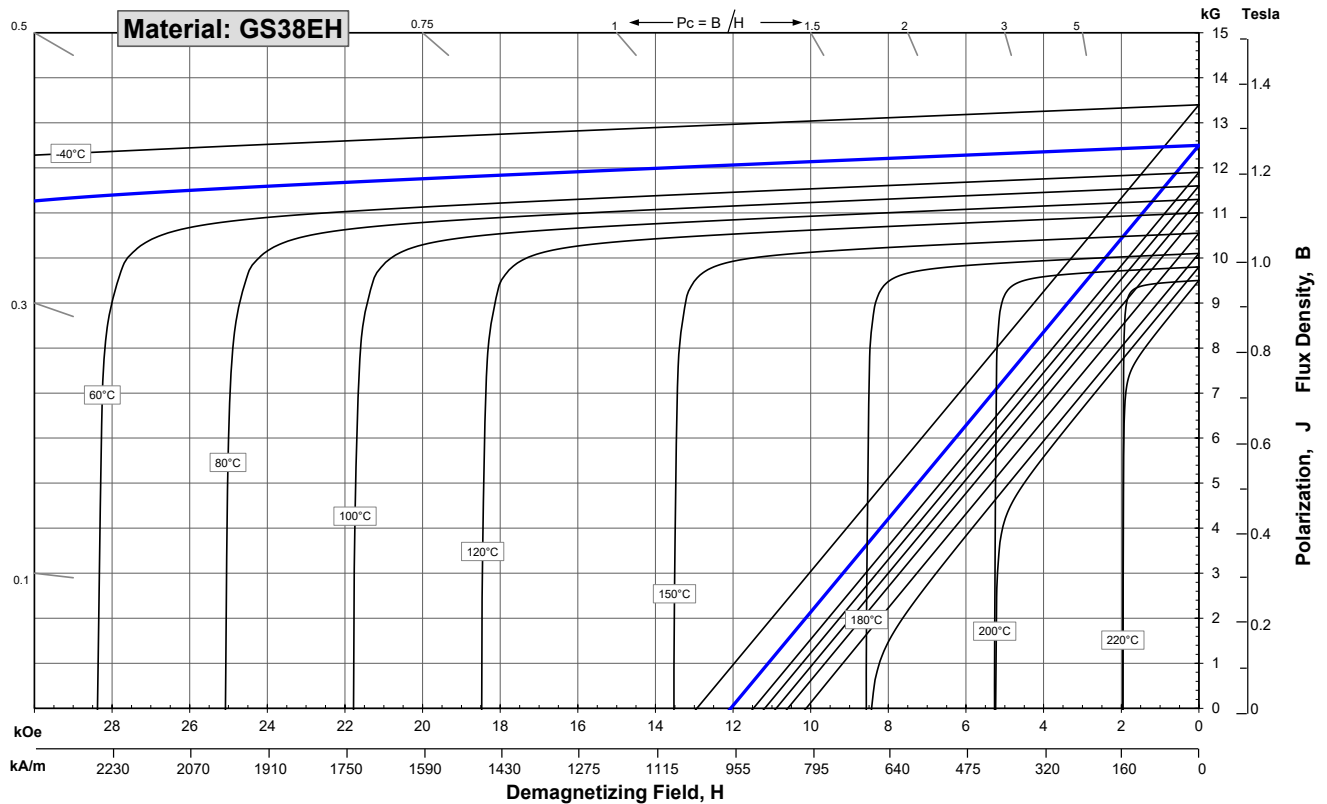
## Sintered Neodymium-Iron-Boron Magnets

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	12,200	12,500	12,800
	mT	1220	1250	1280
<b>H<sub>cB</sub></b> , Coercivity	Oersteds	11,600	11,900	12,200
	kA/m	923	947	971
<b>H<sub>cJ</sub></b> , Intrinsic Coercivity	Oersteds	35,000		
	kA/m	2,786		
<b>BH<sub>max</sub></b> , Maximum Energy Product	MGOe	35	38	40
	kJ/m <sup>3</sup>	279	299	318

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	
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.