

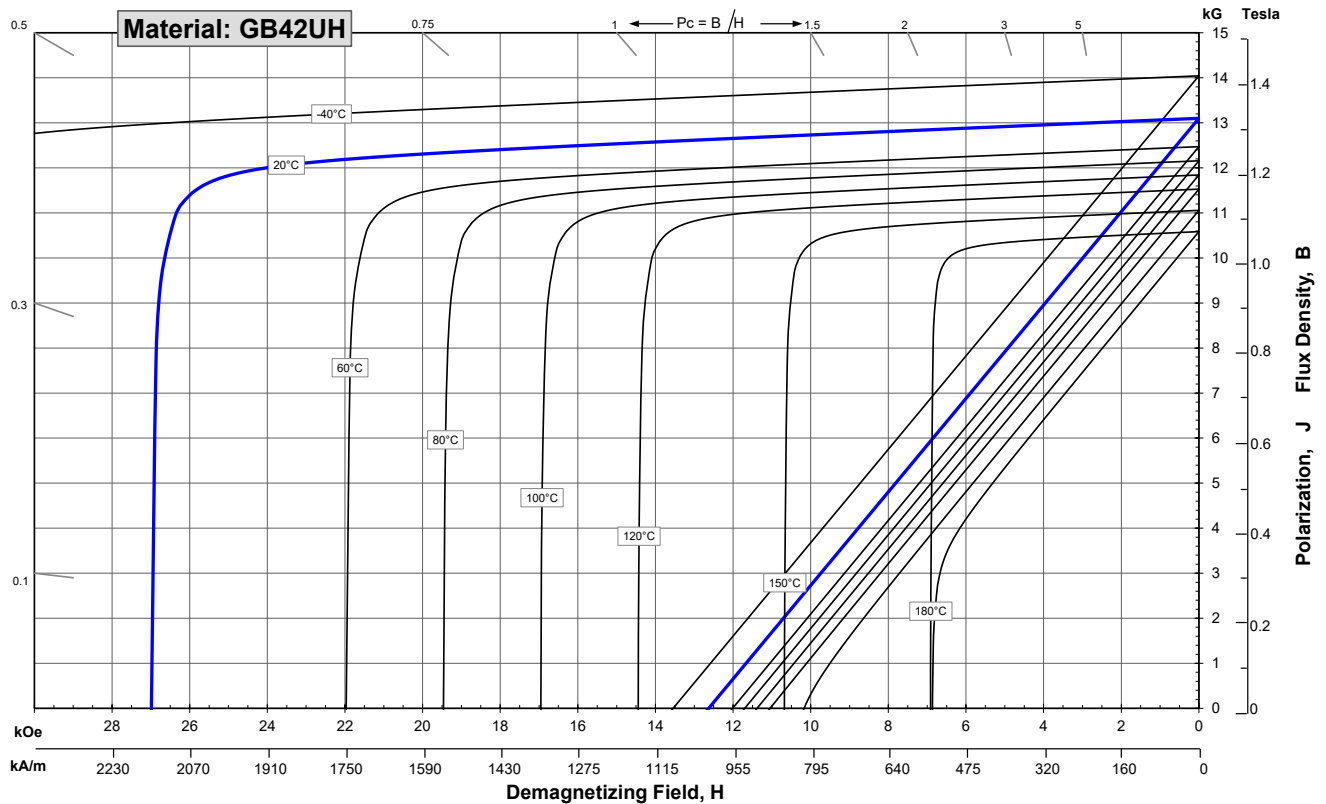
## Sintered Neodymium-Iron-Boron Magnets

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	12,800	13,100	13,400
	mT	1280	1310	1340
<b>H<sub>cB</sub></b> , Coercivity	Oersteds	12,000	12,400	12,800
	kA/m	955	987	1019
<b>H<sub>cJ</sub></b> , Intrinsic Coercivity	Oersteds	27,000		
	kA/m	2,149		
<b>BH<sub>max</sub></b> , Maximum Energy Product	MGOe	39	42	44
	kJ/m <sup>3</sup>	310	330	350

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 180 °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.