

N40 Grade Sintered Neodymium-Iron-Boron Magnets

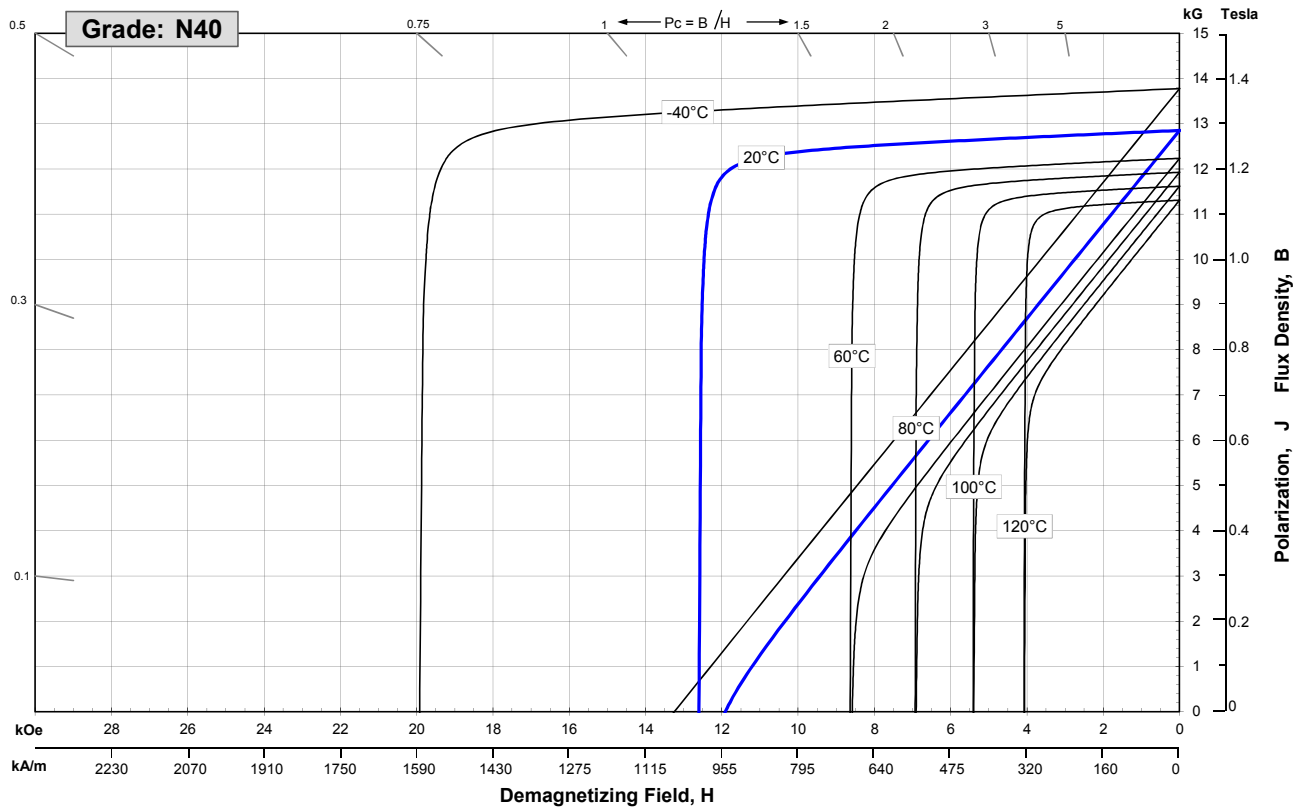
These are also referred to as "Neo" or NdFeB magnets. They offer a combination of high magnetic output at moderate cost. Please contact ALB for additional grade information and recommendations for protective coating. Assemblies using these magnets can also be provided.

Characteristic	Units	Magnetic Properties		
		min.	nominal	max.
Br , Residual Induction	Gauss	12,500	12,850	13,200
	mT	1250	1285	1320
H_{cB} , Coercivity	Oersteds	11,600	12,100	12,600
	kA/m	923	963	1003
H_{cJ} , Intrinsic Coercivity	Oersteds	12,000		
	kA/m	955		
BH_{max} , Maximum Energy Product	MGOe	38	40	42
	kJ/m ³	302	318	334

Characteristic	Units	Thermal Properties	
		C //	C ⊥
Reversible Temperature Coefficients ⁽¹⁾			
of Induction, α(Br)	%/°C	-0.120	
of Coercivity, α(H _{cj})	%/°C	-0.750	
Coefficient of Thermal Expansion ⁽²⁾	ΔL/L per °C×10 ⁻⁶	7.5	-0.1
Thermal Conductivity	W / (m · K)	7.6	
Specific Heat ⁽³⁾	J / (kg · K)	460	
Curie Temperature, T _c	°C	310	
Other Properties			
Flexural Strength	psi	41,300	
	MPa	285	
Density	g/cm ³	7.5	
Hardness, Vickers	Hv	620	
Electrical Resistivity, ρ	μΩ · cm	180	

Notes: (1) Coefficients measured between 20 and 80 °C
(2) Between 20 and 200 °C
(3) Between 20 and 140 °C

Demagnetisation Curves



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. Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.

