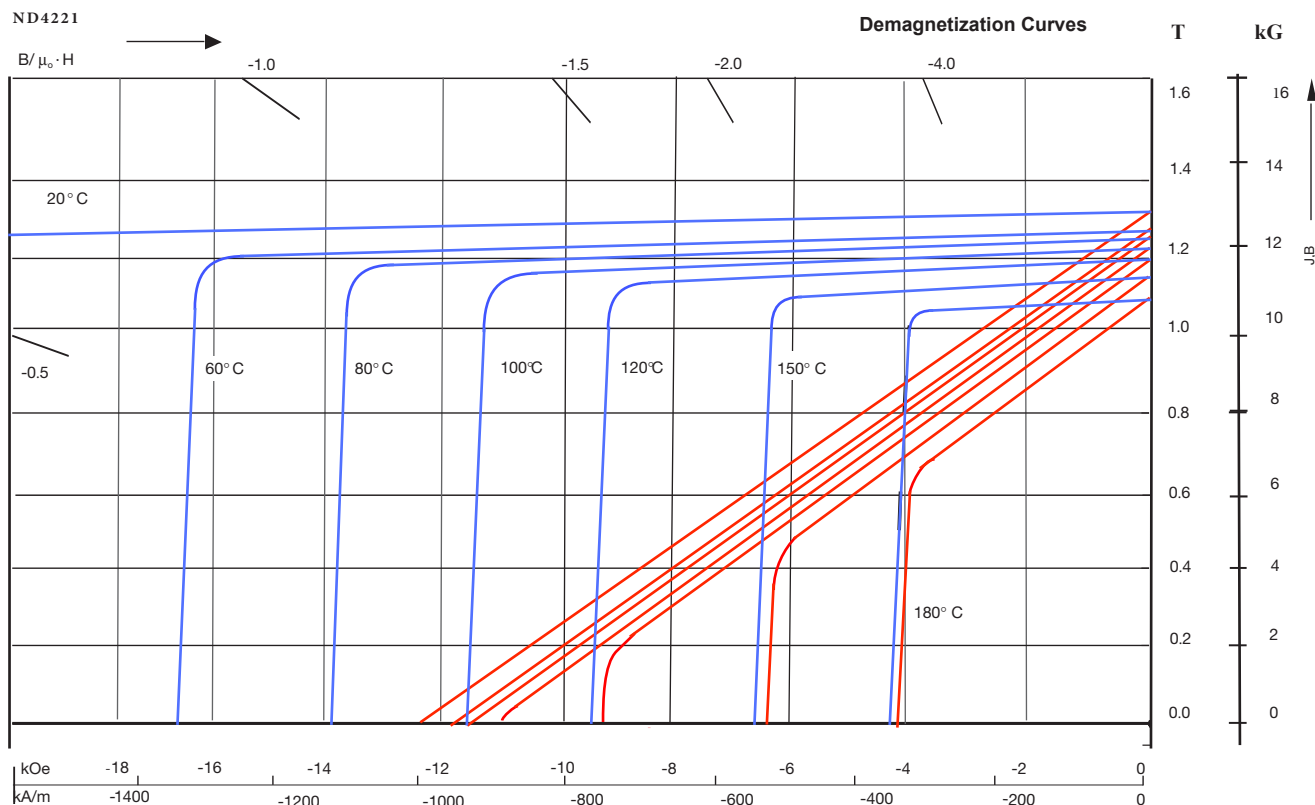


# TDA MAGNETICS

## Neodymium (Sintered) Grade ND4221



Magnetic Properties		Units	min.	nominal
Br, Residual Induction		Gauss	12,800	13,000
		Tesla	1.28	1.3
Hc, Coercivity		Oersteds	12,000	12,600
		kA/m	954.9	1002.7
Hci, Intrinsic Coercivity		Oersteds	21,000	22,000
		kA/m	1,671.1	1750.7
BHmax, Maximum Energy Product		MGOe	40.0	42.0
		kJ/m <sup>3</sup>	318	334.2
Physical Properties		Units	C //	C ⊥
Reversible Temperature Coefficients (1)				
of Induction, α(Br)		%/°C		0.11
of Coercivity, α(Hci)		%/°C		-0.55
Coefficient of Thermal Expansion (2)		ΔL/L per °C×10 <sup>-6</sup>	65.0	-5.0
Thermal Conductivity		W/(m•K)		5-15
Specific Heat (3)		J/(kg•K)		300-500
Max. Recommended Use Temperature		°C		140
Curie Temperature, Tc		°C		311
Flexural Strength		psi		N/A
		MPa		N/A
Compressive Strength		psi		N/A
		MPa		600-1250
Young's Modulus		GPa		140-170
Density		g/cm <sup>3</sup>		8.4
Hardness, Vickers		Hv		600
Electrical Resistivity, ρ		Ω • cmμ		160

(1) Coefficients measured between 20 and 200 °C

(2) Between 20 and 200 °C

(3) Between 20 and 150 °C