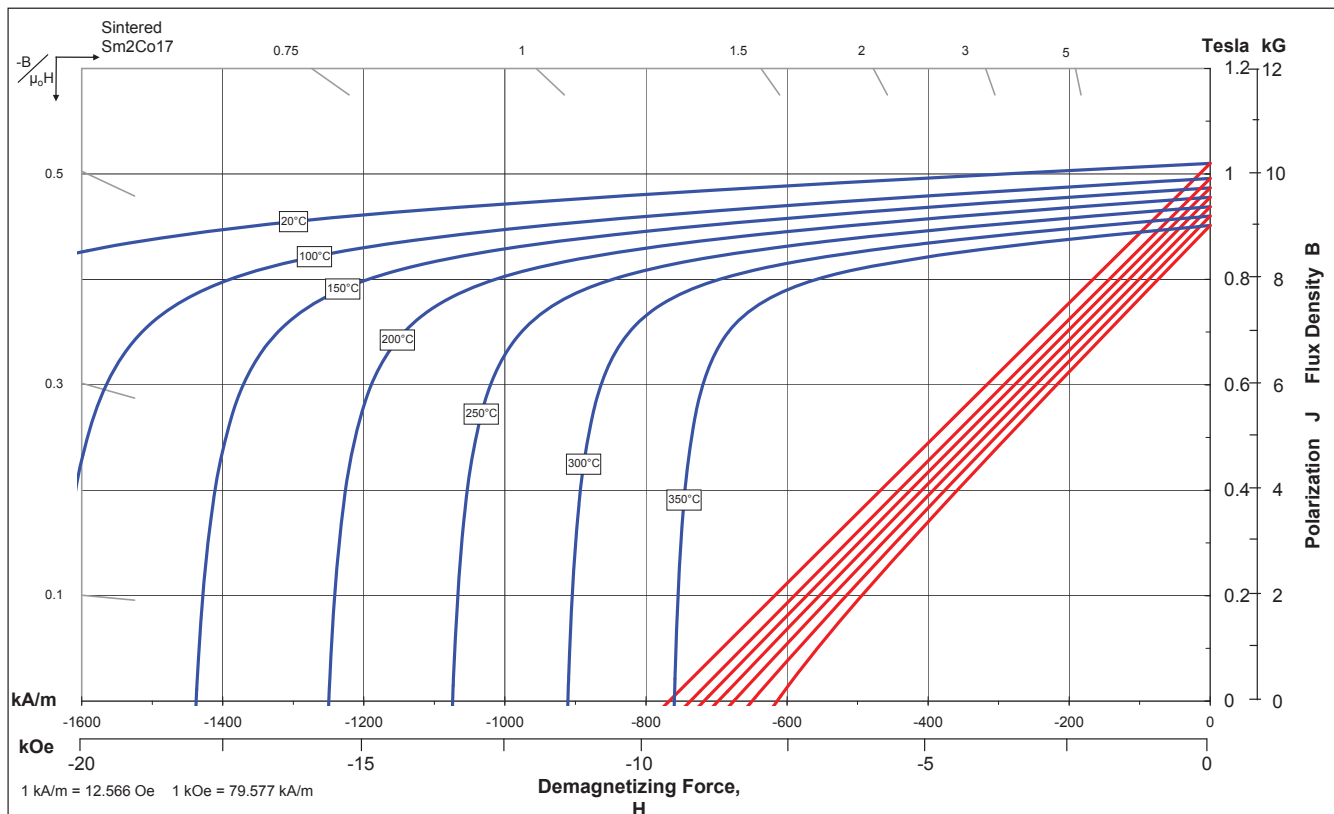


TDA MAGNETICS

Samarium Cobalt (Sintered) Grade SM2419

Demagnetization Curves



Magnetic Properties		Units	min.	nominal
Br, Residual Induction	Gauss		9,700	10,200
	Tesla		0.97	1.02
Hc, Coercivity	Oersteds		8,980	9,610
	kA/m		715	765
Hci, Intrinsic Coercivity	Oersteds		19,000	25,000
	kA/m		1,500	2,000
BHmax, Maximum Energy Product	MGOe		22	25
	kJ/m ³		175	195
Physical Properties		Units	C //	C ⊥
Reversible Temperature Coefficients (1)				
	of Induction, α(Br)	%/°C		-0.035
	of Coercivity, α(Hci)	%/°C		-0.212
Coefficient of Thermal Expansion (2)		ΔL/L per °C x 10 ⁻⁶	11	13
Thermal Conductivity		W/(m·K)		10
Specific Heat (3)		J/(kg·K)		350
Max. Recommended Use Temperature		°C		350
Curie Temperature, Tc		°C		825
Flexural Strength		psi		17,400
		MPa		120
Compressive Strength		psi		116,000
		MPa		800
Young's Modulus		GPa		140
Density		g/cm ³		8.4
Hardness, Vickers		Hv		600
Electrical Resistivity, ρ		Ω · cm μ		90

(1) Coefficients measured between 20 and 200 °C

(2) Between 20 and 200 °C

(3) Between 20 and 150 °C