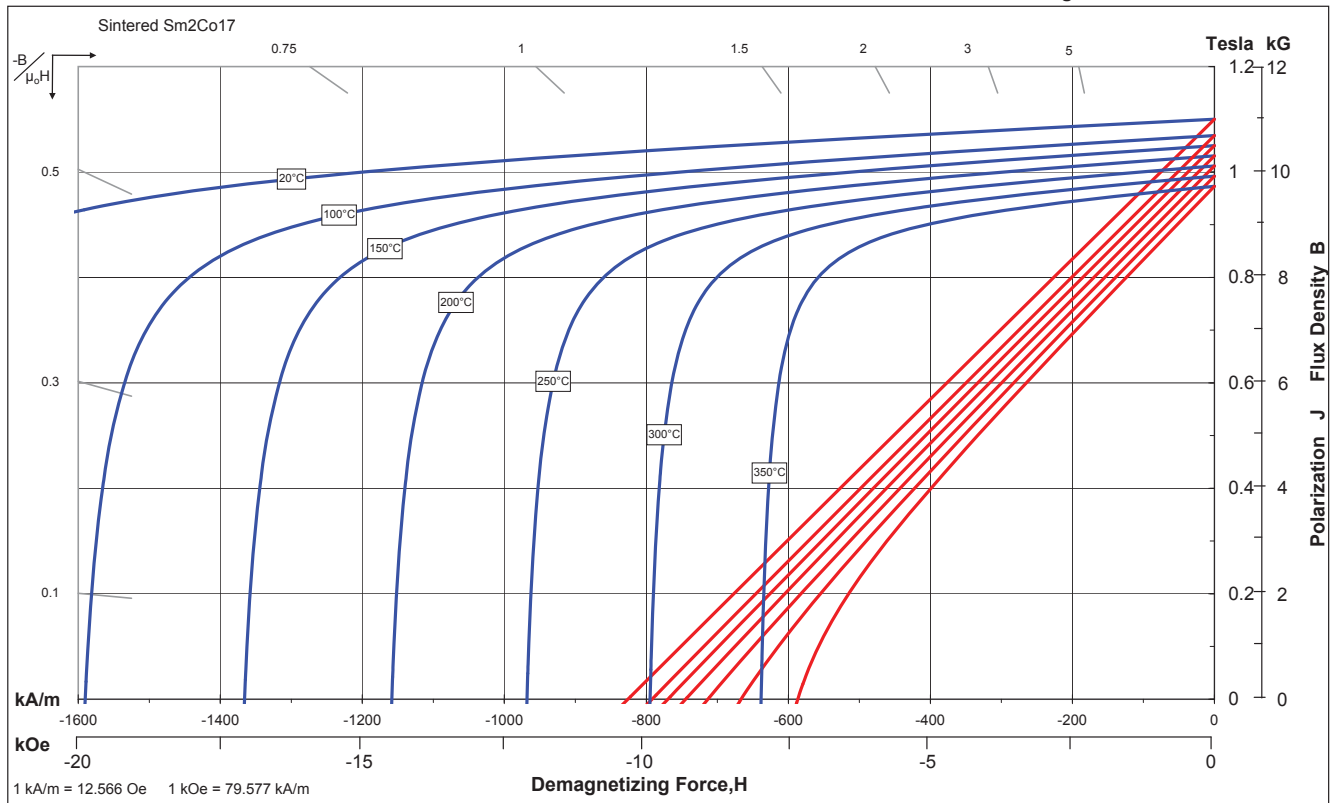


TDA MAGNETICS

Samarium Cobalt (Sintered) Grade SM2819

Demagnetization Curves



Magnetic Properties		Units	min.	nominal
Br, Residual Induction		Gauss	10,600	11,000
		Tesla	1.06	1.10
Hc, Coercivity		Oersteds	9,740	10,120
		kA/m	775	805
Hci, Intrinsic Coercivity		Oersteds	19,000	25,000
		kA/m	1,500	2,000
BHmax, Maximum Energy Product		MGOe	27	28
		kJ/m ³	215	225
Physical Properties		Units	C //	C ⊥
Reversible Temperature Coefficients ⁽¹⁾				
	of Induction, α(Br)	%/°C		-0.035
	of Coercivity, α(Hci)	%/°C		-0.24
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 • cmμ		90

(1) Coefficients measured between 20 and 150 °C

(2) Between 20 and 200 °C

(3) Between 20 and 150 °C