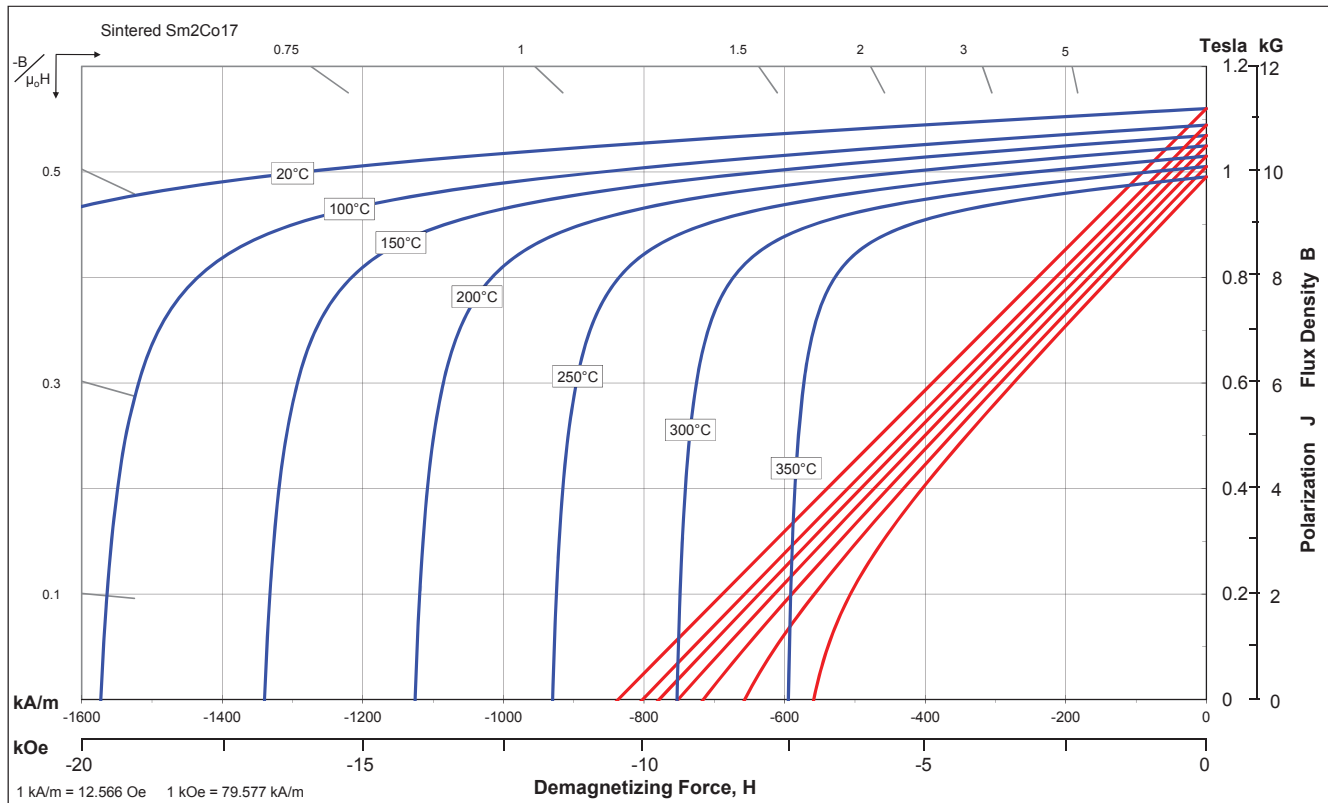


TDA MAGNETICS

Samarium Cobalt (Sintered) Grade SM3022

Demagnetization Curves



Magnetic Properties	Units	min.	nominal	
Br , Residual Induction	Gauss	10,900	11,200	
	Tesla	1.09	1.12	
H_c , Coercivity	Oersteds	9,990	10,430	
	kA/m	795	830	
H_{ci} , Intrinsic Coercivity	Oersteds	19,000	25,000	
	kA/m	1,500	2,000	
BH_{max} , Maximum Energy Product	MGOe	27.0	28.9	
	kJ/m ³	215	230	
Physical Properties	Units	C //	C ⊥	
Reversible Temperature Coefficients ⁽¹⁾				
	of Induction, α(Br)	%/°C		-0.035
	of Coercivity, α(H _{ci})	%/°C		-0.25
Coefficient of Thermal Expansion ⁽²⁾	ΔL/L per °C × 10 ⁻⁶	11	13	
Thermal Conductivity	W/(m·K)		10	
Specific Heat ⁽³⁾	J/(kg·K)		0	
Max. Recommended Use Temperature	°C		350	
Curie Temperature, T _c	°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		8.3	
Hardness, Vickers	Hv		600	
Electrical Resistivity, ρ	Ω • cm μ		90	

(1) Coefficients measured between 20 and 150 °C

(2) Between 20 and 200 °C

(3) Between 20 and 150 °C