Recoma 35E

Recoma® Sintered Samarium Cobalt Magnets

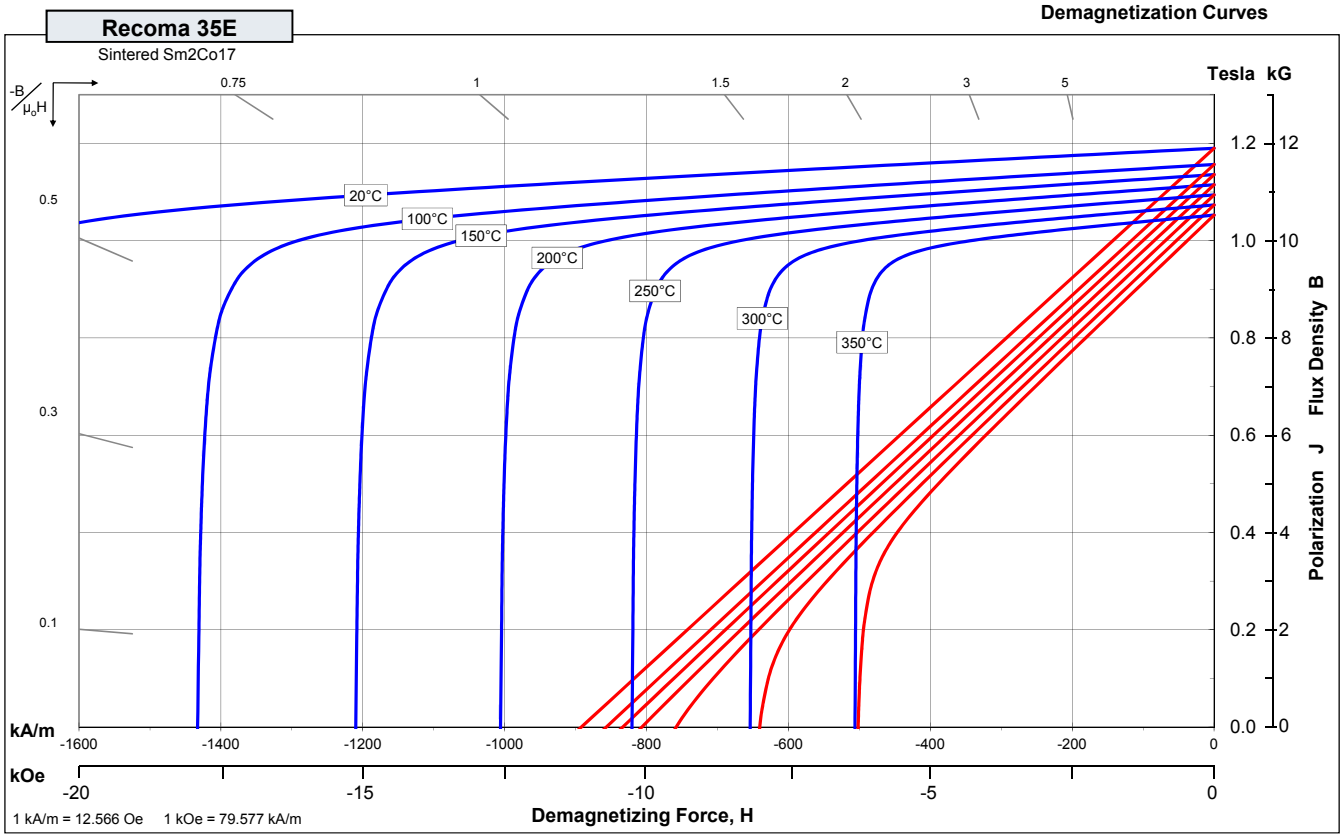
These are also referred to as Rare Earth or SmCo magnets. The Recoma family of materials offer a combination of high magnetic output and excellent temperature stability. Please contact Arnold for additional grade information, application assistance and recommendations for protective coatings. Assemblies using these magnets can also be provided.

	Characteristic	Units	min.	nominal
Magnetic Properties	**Br**, Residual Induction	Gauss	11,700	11,900
		Tesla	1.170	1.190
	H_{cB}, Coercivity	Oersteds	10,810	11,060
		kA/m	860	880
	H_{cJ}, Intrinsic Coercivity	Oersteds	21,000	23,000
		kA/m	1,710	1,800
	BHmax, Maximum Energy Product	MGOe	32.0	33.3
		kJ/m^3	255	265

	Characteristic	Units	C //	C ⊥
Thermal Properties	Reversible Temperature Coefficients (1)			
	of Induction, α(Br)	%/ºC	-0.035	
	of Coercivity, α(Hcj)	%/ºC	-0.25	
	Coefficient of Thermal Expansion (2)	ΔL/L per ºCx10^{-6}	11	13
	Thermal Conductivity	W/(m•K)	10	
	Specific Heat (3)	J/(kg•K)	350	
	Max. Recommended Use Temperature	ºC	300	
	Curie Temperature, Tc	ºC	820	
Other Properties	Flexural Strength	psi	17,400	
		MPa	120	
	Compressive Strength	psi	116,000	
		MPa	800	
	Young's Modulus	GPa	140	
	Density	Mg/m^3	8.3	
	Hardness, Vickers	Hv	600	
	Electrical Resistivity, ρ	μΩ • cm	90	

Notes: (1) Coefficients measured between 20 and 200 ºC
(2) Between 20 and 200 ºC
(3) Between 20 and 150 ºC

Demagnetization Curves



Notes The material data and demagnetization curves shown above represent typical properties that may vary due to product shape and size.
Demagnetization curves show nominal Br and Hcj.
Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications.
Additional grades are available. Please contact the factory for information.

E-mail: info@arnoldmagnetics.com
www.arnoldmagnetics.com