

Sintered Neodymium-Iron-Boron Magnets

Also available in other Energy Products from 30-55MGOe and Maximum Temperatures up to 230°C / 446°F. If you require DFAR Compliant material please contact our sales team directly with your requirements.

Magnetic Properties	Characteristic	Units	min.	nominal	max.
	B_r Residual Induction	Gauss	11,800	12,050	12,300
	mT	1180	1205	1230	
H_{cB} Coercivity	Oersteds	10,900	11,350	11,800	
	kA/m	868	903	939	
H_{cJ} Intrinsic Coercivity	Oersteds	12,000			
	kA/m	955			
BH_{max} Maximum Energy Product	MGOe	33	35	36	
	kJ/m ³	263	275	287	

Thermal Properties	Characteristic	Units	Nominal
	Reversible Temperature Coefficients ⁽¹⁾		
of Induction, $\alpha(B_r)$	%/°C		-0.120
of Coercivity, $\alpha(H_{cJ})$	%/°C		-0.690
Curie Temperature, T_c	°C		310
Recommended Max use temperature ⁽²⁾	°C		80

Physical Properties	Characteristic	Units	Nominal
	Density	g/cm ³	
Vickers Hardness	Hv		620
Coef Thermal Expansion	% / °C x 10 ⁻⁶	C //	7.5
		C ⊥	-0.1
Electrical Resistivity	μΩ • cm		180
Specific Heat	cal/g • °C		0.11
	J/kg • K		460
Bending (flexural) Strength	MPa		285

Notes: (1) Coefficients measured between 20 and 80 °C

(2) Recommended maximum use temperature based on a minimum P_c of 2.2.

These magnetic characteristics and demagnetization curves represent typical production magnet performance across the specified temperature spectrum. Empirical testing for your application is advised for suitability determination.

Dura Magnetics Inc also supplies Alnico, Samarium Cobalt, and Ceramic magnets and magnetic assemblies, please contact sales@duramag.com or visit www.duramag.com.

