

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.

Characteristic		Units	min.	nominal	max.
B_r Residual Induction		Gauss	12,900	13,100	13,300
		mT	1290	1310	1330
H_{cB} Coercivity		Oersteds	12,000	12,350	12,700
		kA/m	955	983	1011
H_{cJ} Intrinsic Coercivity		Oersteds	12,000		
		kA/m	955		
BH_{max} Maximum Energy Product		MGOe	40	42	43
		kJ/m^3	318	330	342

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

Characteristic		Units	Nominal
Density		g/cm^3	7.5
Vickers Hardness		Hv	620
Coef Thermal Expansion		$\% / ^\circ\text{C} \times 10^{-6}$	C // 7.5
		C \perp	-0.1
Electrical Resistivity		$\mu\Omega \cdot \text{cm}$	180
Specific Heat		$\text{cal/g} \cdot ^\circ\text{C}$	0.11
		$\text{J/kg} \cdot \text{K}$	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.

