

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 | 12,600 | 12,750 | 12,900 |
| | | mT | 1260 | 1275 | 1290 |
| H_{CB} Coercivity | | Oersteds | 11,600 | 11,950 | 12,300 |
| | | kA/m | 923 | 951 | 979 |
| H_{cJ} Intrinsic Coercivity | | Oersteds | 12,000 | | |
| | | kA/m | 955 | | |
| BH_{max} Maximum Energy Product | | MGOe | 38 | 40 | 41 |
| | | kJ/m ³ | 302 | 315 | 327 |

| 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 | | %/°Cx10 ⁻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.

