Sintered Neodymium-Iron-Boron Magnets

These are also referred to as "Neo" or NdFeB magnets. They offer a combination of high magnetic output at moderate cost. Please contact Arnold for additional grade information and recommendations for protective coating. Assemblies using these magnets can also be provided.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Units</th>
<th>min.</th>
<th>nominal</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B_r, Residual Induction</td>
<td>Gauss</td>
<td>13,000</td>
<td>13,200</td>
<td>13,400</td>
</tr>
<tr>
<td>H_kB, Coercivity</td>
<td>Oersteds</td>
<td>12,300</td>
<td>12,500</td>
<td>12,800</td>
</tr>
<tr>
<td>H_cJ, Intrinsic Coercivity</td>
<td>kA/m</td>
<td>979</td>
<td>999</td>
<td>1019</td>
</tr>
<tr>
<td>BHmax Maximum Energy Product</td>
<td>MGOe</td>
<td>41</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>kJ/m³</td>
<td>326</td>
<td>346</td>
<td>366</td>
</tr>
</tbody>
</table>

Reversible Temperature Coefficients:
- of Induction, α(B_r) %/ºC
- of Coercivity, α(H_cj) %/ºC

Coefficient of Thermal Expansion (2) \( \Delta L/L \times 10^{-6} \)
- between 20 and 200 ºC

Other Properties:
- Thermal Conductivity kcal/m/hr/ºC
- Specific Heat cal/g/ºC
- Curie Temperature, Tc ºC
- Flexural Strength MPa
- Density g/cm³
- Hardness, Vickers Hv
- Electrical Resistivity, \( \rho \) \( \mu \Omega \cdot \text{cm} \)

Notes:
- (1) Coefficients measured between 20 and 200 ºC
- (2) Between 20 and 140 ºC
- (3) Between 20 and 140 ºC

Material: GS44EH

Demagnetizing Field, \( H \) vs. \( B \): 1 kA/m = 12.566 Oe  1 kOe = 79.577 kA/m

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 minimum HcJ. Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.

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