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>Br, Residual Induction</td>
<td>Gauss</td>
<td>13,200</td>
<td>13,500</td>
<td>13,800</td>
</tr>
<tr>
<td>HcB, Coercivity</td>
<td>Oersteds</td>
<td>10,800</td>
<td>12,000</td>
<td>13,200</td>
</tr>
<tr>
<td>Hci, Intrinsic Coercivity</td>
<td>kA/m</td>
<td>860</td>
<td>955</td>
<td>1050</td>
</tr>
<tr>
<td>BHmax, Maximum Energy Product</td>
<td>MGOe</td>
<td>42</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td>BHmax, Maximum Energy Product</td>
<td>kJ/m³</td>
<td>334</td>
<td>350</td>
<td>366</td>
</tr>
</tbody>
</table>

**Characteristic Units**

- **C // C**
  - Reversible Temperature Coefficients (1)
    - of Induction, α(Br) %/ºC
    - of Coercivity, α(Hcj) %/ºC
- Coefficient of Thermal Expansion (2) ∆L/L per ºCx10⁻⁶
  - 7.5
- Thermal Conductivity W / (m • K)
  - 1320
- Specific Heat (3) J / (kg • K)
  - 10,800
- Curie Temperature, Tc ºC
  - 285
- Flexural Strength psi
  - 41,300
- Density g/cm³
  - 7.5
- Hardness, Vickers Hv
  - 620
- Electrical Resistivity, ρ µΩ • cm
  - 180

**Notes:**
(1) Coefficients measured between 20 and 80 ºC
(2) Between 20 and 200 ºC
(3) Between 20 and 140 ºC

**Notes**

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