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>14,100</td>
<td>14,300</td>
<td>14,500</td>
</tr>
<tr>
<td>HcJ, Coercivity</td>
<td>Oersteds</td>
<td>13,400</td>
<td>13,650</td>
<td>13,900</td>
</tr>
<tr>
<td>Hci, Intrinsic Coercivity</td>
<td>kA/m</td>
<td>1067</td>
<td>1086</td>
<td>1106</td>
</tr>
<tr>
<td>BHmax, Maximum Energy Product</td>
<td>MGOe</td>
<td>47</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>kJ/m³</td>
<td>374</td>
<td>394</td>
<td>414</td>
</tr>
</tbody>
</table>

Reversible Temperature Coefficients (1):
- of Induction, α(Br) %/ºC
- of Coercivity, α(Hcj) %/ºC

Coefficient of Thermal Expansion (2) ΔL/L per ºC x10-6

- 7.5
- 0.1

Thermal Conductivity kcal/mhrºC
- 5.3
- 5.8

Specific Heat (3) cal/gºC
- 0.11

Curie Temperature, Tc ºC
- 310

Flexural Strength MPa
- 285

Density g/cm³
- 7.6

Hardness, Vickers HV
- 620

Electrical Resistivity, ρ μΩ * cm
- 150 // 130

Notes:
(1) Coefficients measured between 20 and 180 ºC
(2) Between 20 and 200 ºC
(3) Between 20 and 140 ºC

**Material: G52UH**

![Diagram](image-url)

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.