

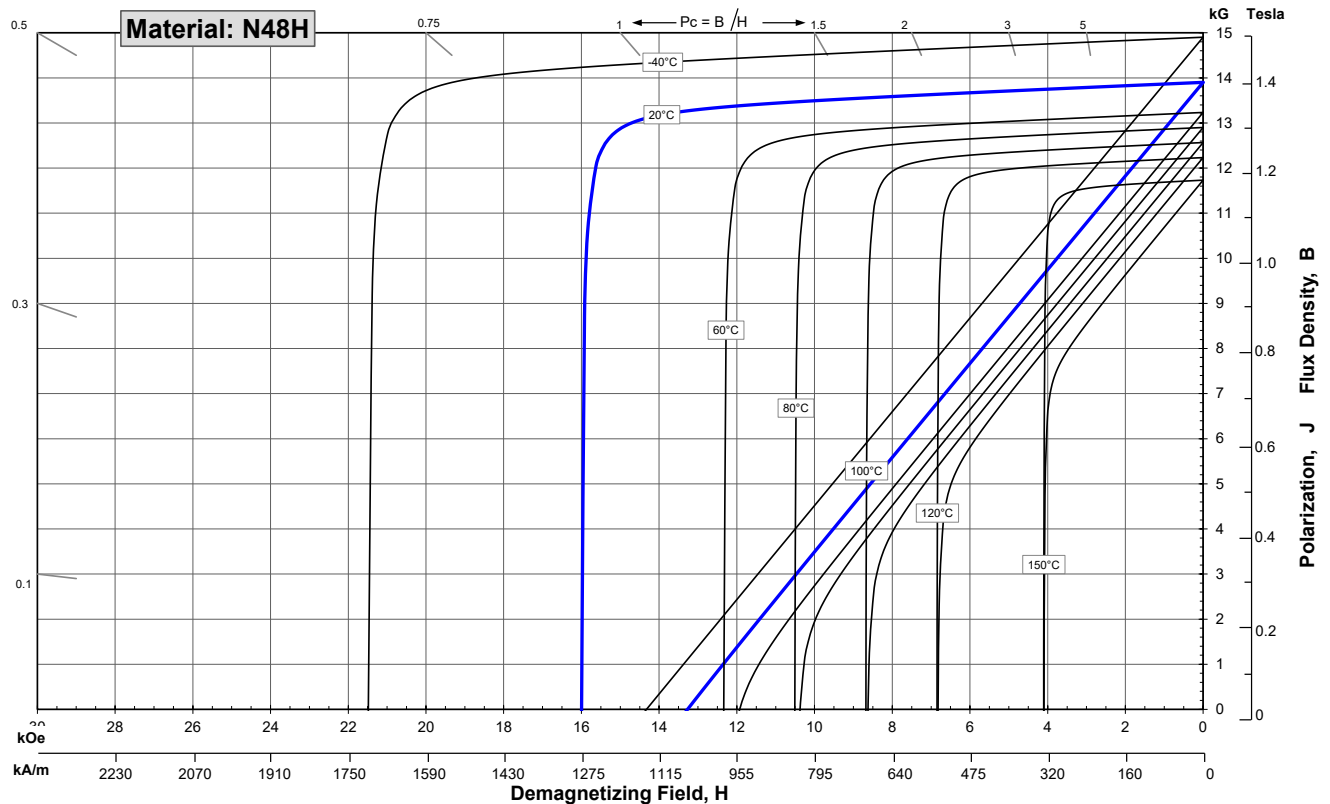
Sintered Neodymium-Iron-Boron Magnets

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.

| Characteristic | Units | Magnetic Properties | | |
|--|-------------------|---------------------|---------|--------|
| | | min. | nominal | max. |
| Br , Residual Induction | Gauss | 13,600 | 13,900 | 14,200 |
| | mT | 1360 | 1390 | 1420 |
| H_{cB} , Coercivity | Oersteds | 12,700 | 13,150 | 13,600 |
| | kA/m | 1011 | 1046 | 1082 |
| H_{cJ} , Intrinsic Coercivity | Oersteds | 16,000 | | |
| | kA/m | 1,273 | | |
| BH_{max} , Maximum Energy Product | MGOe | 45 | 48 | 50 |
| | kJ/m ³ | 358 | 378 | 398 |

| Characteristic | Units | Thermal Properties | |
|--|------------------------------------|--------------------|-------|
| | | C // | C ⊥ |
| Reversible Temperature Coefficients ⁽¹⁾ | | | |
| | of Induction, α(Br) | %/°C | -0.12 |
| | of Coercivity, α(H _{cJ}) | %/°C | -0.57 |
| Coefficient of Thermal Expansion ⁽²⁾ | ΔL/L per °Cx10 ⁻⁶ | 7 | -1 |
| Thermal Conductivity | kcal/mhr°C | 5.3 | 5.8 |
| Specific Heat ⁽³⁾ | cal/g°C | 0.11 | |
| Curie Temperature, T _c | °C | 310 | |
| Flexural Strength | psi | 41,300 | |
| | MPa | 285 | |
| Density | g/cm ³ | 7.6 | |
| Hardness, Vickers | Hv | 620 | |
| Electrical Resistivity, ρ | μΩ • cm | 150 // 130 ⊥ | |

Notes:
 (1) Coefficients measured between 20 and 120 °C
 (2) Between 20 and 200 °C. Values are typical and can vary.
 (3) Between 20 and 140 °C



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 H_{cI}.** Magnets can be supplied thermally stabilized or magnetically calibrated to customer specifications. Additional grades are available. Please contact the factory for information.