Temperature in [°C]:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Br min</th>
<th>T</th>
<th>Br nom</th>
<th>T</th>
<th>HcB min</th>
<th>kA/m</th>
<th>HcB nom</th>
<th>kA/m</th>
<th>HcJ min</th>
<th>kA/m</th>
<th>HcJ nom</th>
<th>kA/m</th>
<th>BH max, min</th>
<th>kJ/m</th>
<th>BH max, nom</th>
<th>kJ/m</th>
<th>α Br nom</th>
<th>%/°C</th>
<th>β HcJ nom</th>
<th>%/°C</th>
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<td>1.220</td>
<td>12.2</td>
<td>1.260</td>
<td>12.6</td>
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<td>11.3</td>
<td>969</td>
<td>12.2</td>
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<td>2390</td>
<td>30.0</td>
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<td>35.1</td>
<td>303</td>
<td>38.1</td>
<td>-0.100</td>
<td>-0.120</td>
<td>-0.48</td>
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### Magnetic Properties

- **Remanence 20°C**
  - Br min: 1.220 T
  - Br nom: 1.260 T
- **Coercitivity 20°C**
  - HcB min: 899 kA/m
  - HcB nom: 969 kA/m
- **Intrinsic Coercitivity 20°C**
  - HcJ min: 2387 kA/m
  - HcJ nom: 2390 kA/m
- **Maximum Energy Product 20°C**
  - BH max, min: 279 kJ/m³
  - BH max, nom: 303 kJ/m³
- **Reversible Temperature Coefficient**
  - α Br nom: -0.100 ~ -0.120 %/°C
  - β HcJ nom: -0.48 ~ -0.65 %/°C

### Material Properties (Typical Values)

- **Max. Operating Temperature**
  - T max: 200 °C
- **Density**
  - ρ: 7.55 g/cm³
- **Permeability 20°C**
  - µr: 1.05
- **Vickers Hardness**
  - 500 - 600 HV
- **Modulus of Elasticity**
  - E: 150 - 200 kN/mm²
- **Compressive Strength**
  - 1000 - 1100 N/mm²
- **Flexural Strength**
  - 250 N/mm²
- **Expansion Coefficient**
  - -
- **Expansion Coefficient in Direction of Anisotropy**
  - -
  - //: 1.0 - 3.0 10⁻⁶/K
  - \//: 3.0 - 4.0 10⁻⁶/K
- **Specific Electric Resistance**
  - ρel: 1.4 - 1.6 µΩ m
- **Specific Heat Capacity**
  - c: 440 J/(kg K)
- **Thermal Conductivity**
  - λ: 8.0 - 10.0 W/m K

Note:

1) The shown temperature coefficients are nominal reference values only. They can vary for different temperatures and don't need to be linear.
2) The maximum operating temperature is depending on the magnet shape, size and on the specific application.

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**Note:** The above plotted graphs are idealized and represent theoretical values of the material. Shown are curves according nominal values based on uncoated material samples according to IEC 60404-5. Material and magnetic data represent typical data that may vary due to product shape, size and coating. Please contact Bomatec regarding specific requirements for your application.