



Temperature in [°C]: **20.0**

magnetic properties

| | | | | | |
|--|-------------|-----------------|-------------------|-----|------|
| Remanence 20°C | Br min | 0.700 | T | 7.0 | kG |
| | Br nom | 0.730 | T | 7.3 | kG |
| Coercivity 20°C | HcB min | 107 | kA/m | 1.3 | kOe |
| | HcB nom | 117 | kA/m | 1.5 | kOe |
| Intrinsic Coercivity 20°C | HcJ min | 111 | kA/m | 1.4 | kOe |
| | HcJ nom | 121 | kA/m | 1.5 | kOe |
| Maximum Energy Product 20°C | BH max, min | 33 | kJ/m ³ | 4.1 | MGOe |
| | BH max, nom | | kJ/m ³ | | MGOe |
| Reversible Temperature Coefficient ¹⁾ | α Br nom | -0.010 ~ -0.035 | %/°C | | |
| | β HcJ nom | -0.03 ~ 0.03 | %/°C | | |

material properties (typical values)

| | | | | | |
|--|-------|-------------|---------------------|--|--|
| Max. Operating Temperature ²⁾ | T max | 500 | °C | | |
| Density | ρ | 7.2 | g/cm ³ | | |
| Permeability 20°C | μr | 3.5 | | | |
| Vickers Hardness | | 300 - 400 | HV | | |
| Modulus of Elasticity | E | 100 - 200 | kN/mm ² | | |
| Copressive Strength | | 300 - 400 | N/mm ² | | |
| Flexural Strength | | - | N/mm ² | | |
| Expansion Coefficient | | 11.0 - 12.0 | 10 ⁻⁶ /K | | |
| Expansion Coefficient in direction of anisotropy | ⊥ | - | 10 ⁻⁶ /K | | |
| | // | - | 10 ⁻⁶ /K | | |
| Specific Electric Resistance | ρel | 0.45 - 0.55 | μΩ m | | |
| Specific Heat Capacity | c | - | J/(kg K) | | |
| Thermal Conductivity | λ | 10.0 - 50.0 | W/m K | | |

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.

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.