



Temperature in [°C]: **20.0** **80.0** **100.0**

magnetic properties

| | | | | | |
|--|-------------|-----------------|-------------------|------|------|
| Remanence 20°C | Br min | 1.360 | T | 13.6 | kG |
| | Br nom | 1.400 | T | 14.0 | kG |
| Coercivity 20°C | HcB min | 795 | kA/m | 10.0 | kOe |
| | HcB nom | 865 | kA/m | 10.9 | kOe |
| Intrinsic Coercivity 20°C | HcJ min | 835 | kA/m | 10.5 | kOe |
| | HcJ nom | 900 | kA/m | 11.3 | kOe |
| Maximum Energy Product 20°C | BH max, min | 340 | kJ/m ³ | 42.7 | MGOe |
| | BH max, nom | 380 | kJ/m ³ | 47.7 | MGOe |
| Reversible Temperature Coefficient ¹⁾ | α Br nom | -0.100 ~ -0.120 | %/°C | | |
| | β HcJ nom | -0.64 ~ -0.72 | %/°C | | |

material properties (typical values)

| | | | | | |
|--|-------|--------|---------------------|--|--|
| Max. Operating Temperature ²⁾ | T max | 100 | °C | | |
| Density | ρ | 7.55 | g/cm ³ | | |
| Permeability 20°C | μr | 1.05 | | | |
| Vickers Hardness | | 750 | HV | | |
| Modulus of Elasticity | E | 150 | kN/mm ² | | |
| Compressive Strength | | 750 | N/mm ² | | |
| Flexural Strength | | 200 | N/mm ² | | |
| Expansion Coefficient | | - | 10 ⁻⁶ /K | | |
| Expansion Coefficient in direction of anisotropy | ⊥ | -1 ~ 0 | 10 ⁻⁶ /K | | |
| | // | 1 ~ 2 | 10 ⁻⁶ /K | | |
| Specific Electric Resistance | ρel | 1.35 | μΩ m | | |
| Specific Heat Capacity | c | 550 | J/(kg K) | | |
| Thermal Conductivity | λ | 5 | W/mK | | |

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.