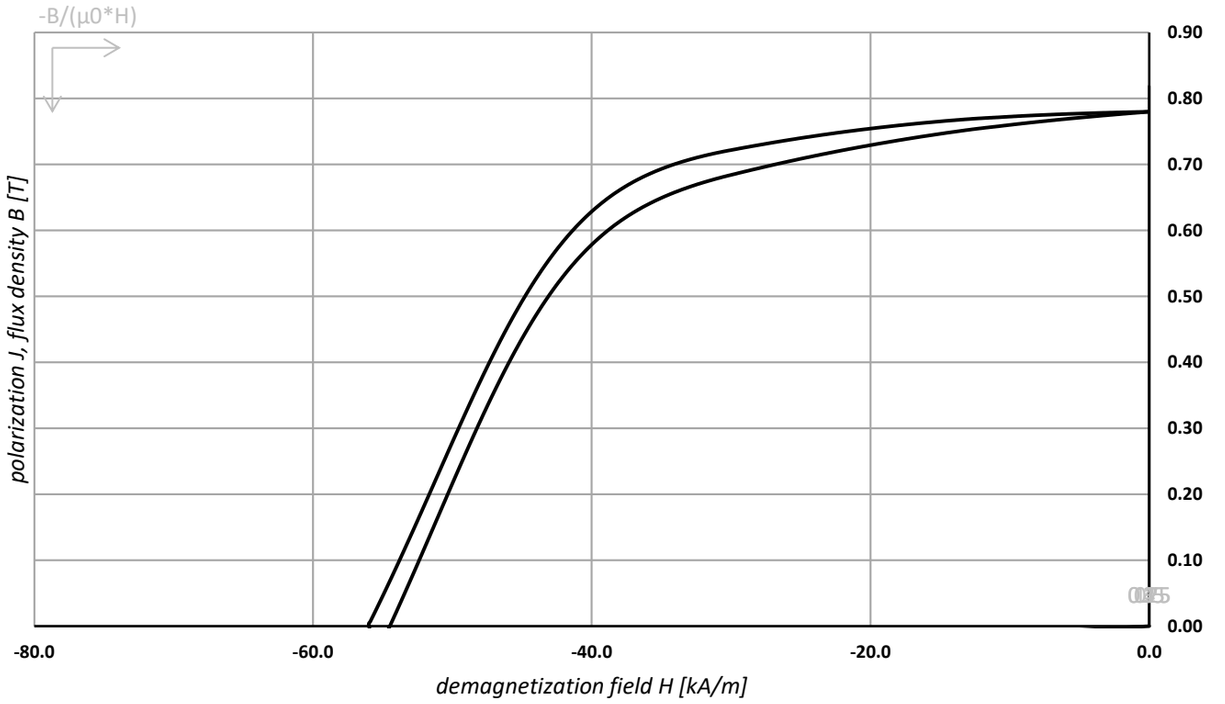
红山磁材
HS MAGNET

**Alnico II** **AlNiCo cast**




Temperature in [°C]: **20.0**

## magnetic properties

| | | | | | |
|---|---|---|---|---|---|
| Remanence 20°C | Br min | 0.750 | T | 7.5 | kG |
| | Br nom | 0.780 | T | 7.8 | kG |
| Coercitivity 20°C | HcB min | 45 | kA/m | 0.6 | kOe |
| | HcB nom | 54 | kA/m | 0.7 | kOe |
| Intrinsic Coercitivity 20°C | HcJ min | 46 | kA/m | 0.6 | kOe |
| | HcJ nom | 56 | kA/m | 0.7 | kOe |
| Maximum Energy Product 20°C | BH max, min | 12 | $kJ/m^3$ | 1.5 | 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 | 450 | °C | | |
| Density | ρ | 7 | $g/cm^3$ | | |
| Permeability 20°C | μr | 7.5 | | | |
| 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 | $\mu\Omega \cdot m$ | | |
| Specific Heat Capacity | c | - | $J/(kg \cdot K)$ | | |
| Thermal Conductivity | λ | 10.0 - 50.0 | $W/m \cdot K$ | | |

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.