



MATERIAL DATA

Magnetic values according to DIN IEC 60404-8-1

| | | | |
|---|----------------------|-------------------|----------------------|
| Energy product (B·H) _{max.} | typ. | kJ/m ³ | 167 |
| | min. | kJ/m ³ | 160 |
| Remanence B _r | typ. | mT | 940 |
| | min. | mT | 920 |
| Revers. temp.-coeff. of B _r | approx. | %/K | -0.045 ¹⁾ |
| Coercivity H _c | H _{cB} typ. | kA/m | 730 |
| | H _{cB} min. | kA/m | 710 |
| | H _{cJ} typ. | kA/m | 1600 |
| | H _{cJ} min. | kA/m | 1433 |
| Revers. temp.-coeff. of H _{cJ} | approx. | %/K | -0.28 ¹⁾ |
| Relative permanent permeability μ _{rec.} | approx. | | 1.05 |
| Curie temperature | approx. | °C | 720 |
| Max. operating temperature | approx. | °C | 250 ²⁾ |
| Magnetising field strength | min. | kA/m | >3500 |

Mechanical values

| | | | |
|------------------------|----------------------|-----------------------------------|---------|
| Density | approx. | g/cm ³ | 8.3 |
| Vickers hardness | approx. | HV | 500-700 |
| Elasticity modulus | approx. | 10 ³ N/mm ² | 100-200 |
| Compressive strength | approx. | N/mm ² | 1000 |
| Flexural strength | approx. | N/mm ² | 100-180 |
| Expansion coefficient | p.p.d. ³⁾ | approx. 10 ⁻⁶ /K | 12 |
| | i.p.d. ⁴⁾ | | 6 |
| Spec. elec. resistance | approx. | 10 ⁻⁶ Ωm | 0.5 |
| Spec. heat capacity | approx. | J/(kg·K) | 370 |
| Thermal conductivity | approx. | W/mK | 12 |

¹⁾ In the temperature range from 20 °C to 100 °C.
²⁾ The max. operating temperature depends on the magnet dimension and the specific application. Please contact our application engineering for more information.
³⁾ p.p.d. = perpendicular to preferred direction
⁴⁾ i.p.d. = in preferred direction

All values indicated were determined on standard samples according to IEC 60404-5. Matrix pressed magnets of various shapes and sizes may differ in their magnetic ratings.