



Temperature in [°C]: **20.0**

**magnetic properties**

Remanence 20°C	Br min	1.250	T	12.5	kG
	Br nom	1.280	T	12.8	kG
Coercivity 20°C	HcB min	49	kA/m	0.6	kOe
	HcB nom	59	kA/m	0.7	kOe
Intrinsic Coercivity 20°C	HcJ min	50	kA/m	0.6	kOe
	HcJ nom	60	kA/m	0.8	kOe
Maximum Energy Product 20°C	BH max, min	40	kJ/m <sup>3</sup>	5.0	MGOe
	BH max, nom		kJ/m <sup>3</sup>		MGOe
Reversible Temperature Coefficient <sup>1)</sup>	$\alpha$ Br nom	-0.010 ~ -0.035	%/°C		
	$\beta$ HcJ nom	-0.03 ~ 0.03	%/°C		

**material properties (typical values)**

Max. Operating Temperature <sup>2)</sup>	T max	500	°C		
Density	$\rho$	7.2	g/cm <sup>3</sup>		
Permeability 20°C	$\mu_r$	2.5			
Vickers Hardness		300 - 400	HV		
Modulus of Elasticity	E	100 - 200	kN/mm <sup>2</sup>		
Copressive Strength		300 - 400	N/mm <sup>2</sup>		
Flexural Strength		-	N/mm <sup>2</sup>		
Expansion Coefficient		11.0 - 12.0	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	$\perp$	-	10 <sup>-6</sup> /K		
	$\parallel$	-	10 <sup>-6</sup> /K		
Specific Electric Resistance	$\rho_{el}$	0.45 - 0.55	$\mu\Omega$ m		
Specific Heat Capacity	c	-	J/(kg K)		
Thermal Conductivity	$\lambda$	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.