



Temperature in [°C]:                    **20.0**                    **80.0**                    **100.0**                    **120.0**                    **150.0**                    **180.0**

**magnetic properties**

Remanence 20°C	Br min	1.180	T	11.8	kG
	Br nom	1.220	T	12.2	kG
Coercivity 20°C	HcB min	880	kA/m	11.1	kOe
	HcB nom	935	kA/m	11.7	kOe
Intrinsic Coercivity 20°C	HcJ min	1510	kA/m	19.0	kOe
	HcJ nom	1575	kA/m	19.8	kOe
Maximum Energy Product 20°C	BH max, min	265	kJ/m <sup>3</sup>	33.3	MGOe
	BH max, nom	278	kJ/m <sup>3</sup>	34.9	MGOe
Reversible Temperature Coefficient <sup>1)</sup>	α Br nom	-0.085 ~ -0.120	%/°C		
	β HcJ nom	-0.43 ~ -0.57	%/°C		

**material properties (typical values)**

Max. Operating Temperature <sup>2)</sup>	T max	180	°C		
Density	ρ	7.6	g/cm <sup>3</sup>		
Permeability 20°C	μ <sub>r</sub>	1.05			
Vickers Hardness		750	HV		
Modulus of Elasticity	E	150	kN/mm <sup>2</sup>		
Compressive Strength		750	N/mm <sup>2</sup>		
Flexural Strength		200	N/mm <sup>2</sup>		
Expansion Coefficient		-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	⊥	-1 ~ 0	10 <sup>-6</sup> /K		
	//	1 ~ 2	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρ <sub>el</sub>	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.