



Temperature in [°C]:                    **20.0**                    **80.0**                    **100.0**                    **150.0**                    **200.0**                    **250.0**

**magnetic properties**

Remanence 20°C	Br min	1.120	T	11.2	kG
	Br nom	1.140	T	11.4	kG
Coercivity 20°C	HcB min	845	kA/m	10.6	kOe
	HcB nom	865	kA/m	10.9	kOe
Intrinsic Coercivity 20°C	HcJ min	1430	kA/m	18.0	kOe
	HcJ nom	1450	kA/m	18.2	kOe
Maximum Energy Product 20°C	BH max, min	239	kJ/m <sup>3</sup>	30.0	MGOe
	BH max, nom	251	kJ/m <sup>3</sup>	31.5	MGOe
Reversible Temperature Coefficient <sup>1)</sup>	α Br nom	-0.035	%/°C		
	β HcJ nom	-0.200	%/°C		

**material properties (typical values)**

Max. Operating Temperature <sup>2)</sup>	T max	300	°C		
Density	ρ	8.4	g/cm <sup>3</sup>		
Permeability 20°C	μr	1.1			
Vickers Hardness		575	HV		
Modulus of Elasticity	E	150	kN/mm <sup>2</sup>		
Compressive Strength		700	N/mm <sup>2</sup>		
Flexural Strength		120	N/mm <sup>2</sup>		
Expansion Coefficient		-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	⊥	9-13	10 <sup>-6</sup> /K		
	//	6-10	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρel	0.7-1.1	μΩ m		
Specific Heat Capacity	c	370	J/(kg K)		
Thermal Conductivity	λ	10.0 - 13.0	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.