



Temperature in [°C]:                      **20.0**                      **100.0**                      **120.0**                      **150.0**                      **180.0**                      **200.0**

**magnetic properties**

Remanence 20°C	Br min	1.220	T	12.2	kG
	Br nom	1.260	T	12.6	kG
Coercivity 20°C	HcB min	899	kA/m	11.3	kOe
	HcB nom	969	kA/m	12.2	kOe
Intrinsic Coercivity 20°C	HcJ min	2387	kA/m	30.0	kOe
	HcJ nom	2390	kA/m	30.0	kOe
Maximum Energy Product 20°C	BH max, min	279	kJ/m <sup>3</sup>	35.1	MGOe
	BH max, nom	303	kJ/m <sup>3</sup>	38.1	MGOe
Reversible Temperature Coefficient <sup>1)</sup>	α Br nom	-0.100 ~ -0.120	%/°C		
	β HcJ nom	-0.47 ~ -0.62	%/°C		

**material properties (typical values)**

Max. Operating Temperature <sup>2)</sup>	T max	200	°C		
Density	ρ	7.55	g/cm <sup>3</sup>		
Permeability 20°C	μr	1.05			
Vickers Hardness		500 - 600	HV		
Modulus of Elasticity	E	150 - 200	kN/mm <sup>2</sup>		
Compressive Strength		1000 - 1100	N/mm <sup>2</sup>		
Flexural Strength		250	N/mm <sup>2</sup>		
Expansion Coefficient		-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	⊥	-3 - 0	10 <sup>-6</sup> /K		
	//	4 - 9	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρel	1.2 - 1.6	μΩ m		
Specific Heat Capacity	c	440	J/(kg K)		
Thermal Conductivity	λ	8.0 - 10.0	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.