



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

magnetic properties					
Remanence 20°C	Br min	0.300	T	3.0	kG
	Br nom	0.375	T	3.8	kG
Coercivity 20°C	HcB min	160	kA/m	2.0	kOe
	HcB nom	225	kA/m	2.8	kOe
Intrinsic Coercivity 20°C	HcJ min	320	kA/m	4.0	kOe
	HcJ nom	440	kA/m	5.5	kOe
Maximum Energy Product 20°C	BH max, min	12	kJ/m <sup>3</sup>	1.5	MGOe
	BH max, nom	22	kJ/m <sup>3</sup>	2.8	MGOe
Reversible Temperature Coefficient <sup>1)</sup>	α Br nom	-0.190 ~ -0.260	%/°C		
	β HcJ nom	-0.29 ~ -0.32	%/°C		

material properties (typical values)					
Max. Operating Temperature <sup>2)</sup>	T max	120	°C		
Density	ρ	5.35	g/cm <sup>3</sup>		
Permeability 20°C	μr	1.30 - 1.50			
Vickers Hardness		35 - 45	HV		
Modulus of Elasticity	E	8 - 16	kN/mm <sup>2</sup>		
Copressive Strength		-	N/mm <sup>2</sup>		
Flexural Strength		50-100	N/mm <sup>2</sup>		
Expansion Coefficient		10.0 - 30.0	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	⊥	-	10 <sup>-6</sup> /K		
	//	-	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρel	15 - 50	μΩ m		
Specific Heat Capacity	c	-	J/(kg K)		
Thermal Conductivity	λ	2	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.