



Temperature in [°C]:                    **20.0**                    **-40.0**                    **100.0**                    **150.0**                    **200.0**

**magnetic properties**

Remanence 20°C	Br min	0.370	T	3.7	kG
	Br nom	0.390	T	3.9	kG
Coercivity 20°C	HcB min	222	kA/m	2.8	kOe
	HcB nom	243	kA/m	3.1	kOe
Intrinsic Coercivity 20°C	HcJ min	230	kA/m	2.9	kOe
	HcJ nom	251	kA/m	3.2	kOe
Maximum Energy Product 20°C	BH max, min	25.6	kJ/m <sup>3</sup>	3.2	MGOe
	BH max, nom	28	kJ/m <sup>3</sup>	3.5	MGOe
Reversible Temperature Coefficient <sup>1)</sup>	α Br nom	-0.200	%/°C		
	β HcJ nom	0.300	%/°C		

**material properties (typical values)**

Max. Operating Temperature <sup>2)</sup>	T max	250	°C		
Density	ρ	4.95	g/cm <sup>3</sup>		
Permeability 20°C	μr	1.1			
Vickers Hardness		500-600	HV		
Modulus of Elasticity	E	15 - 200	kN/mm <sup>2</sup>		
Copressive Strength		600 - 700	N/mm <sup>2</sup>		
Flexural Strength		55	N/mm <sup>2</sup>		
Expansion Coefficient		-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of anisotropy	⊥	10.0 - 11.0	10 <sup>-6</sup> /K		
	//	12.0 - 13.0	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρel	1000000000	μΩ m		
Specific Heat Capacity	c	700	J/(kg K)		
Thermal Conductivity	λ	4	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.