BOMATEC
MORE THAN JUST MAGNETS

Temperature in [°C]:   **20.0**

magnetic properties					
Remanence 20°C	Br min	1.000	T	10.0	kG
	Br nom	1.030	T	10.3	kG
Coercitivity 20°C	HcB min	58	kA/m	0.7	kOe
	HcB nom	68	kA/m	0.9	kOe
Intrinsic Coercitivity 20°C	HcJ min	60	kA/m	0.8	kOe
	HcJ nom	70	kA/m	0.9	kOe
Maximum Energy Product 20°C	BH max, min	30	kJ/m^3	3.8	MGOe
	BH max, nom		kJ/m^3		MGOe
Reversible Temperature Coefficient [1]	α Br nom	-0.010 ~ -0.035	%/°C		
	β HcJ nom	-0.03 ~ 0.03	%/°C		

material properties (typical values)					
Max. Operating Temperature [2]	T max	500	°C		
Density	ρ	7.2	g/cm^3		
Permeability 20°C	μr	3.5			
Vickers Hardness		300 - 400	HV		
Modulus of Elasticity	E	100 - 200	kN/mm^2		
Copressive Strength		300 - 400	N/mm^2		
Flexural Strength		-	N/mm^2		
Expansion Coefficient		11.0 - 12.0	10^{-6}/K		
Expansion Coefficient in direction of anisotropy	⊥	-	10^{-6}/K		
	//	-	10^{-6}/K		
Specific Electric Resistance	ρel	0.45 - 0.55	μΩ·m		
Specific Heat Capacity	c	-	J/(kg·K)		
Thermal Conductivity	λ	10.0 - 50.0	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.