



Temperature in [°C]: **20.0**

magnetic properties

Remanence 20°C	Br min	0.800	T	8.0	kG
	Br nom	0.830	T	8.3	kG
Coercivity 20°C	HcB min	110	kA/m	1.4	kOe
	HcB nom	120	kA/m	1.5	kOe
Intrinsic Coercivity 20°C	HcJ min	112	kA/m	1.4	kOe
	HcJ nom	122	kA/m	1.5	kOe
Maximum Energy Product 20°C	BH max, min	38	kJ/m ³	4.8	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	7.25	g/cm ³		
Permeability 20°C	μ_r	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	\perp	-	10 ⁻⁶ /K		
	\parallel	-	10 ⁻⁶ /K		
Specific Electric Resistance	ρ_{el}	0.45 - 0.55	$\mu\Omega$ 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.