



Temperature in [°C]: **20.0** **80.0** **100.0** **120.0** **150.0** **180.0**

magnetic properties

Remanence 20°C	Br min	1.440	T	14.4	kG
	Br nom	1.470	T	14.7	kG
Coercivity 20°C	HcB min	1095	kA/m	13.8	kOe
	HcB nom	1125	kA/m	14.1	kOe
Intrinsic Coercivity 20°C	HcJ min	1989	kA/m	25.0	kOe
	HcJ nom	1995	kA/m	25.1	kOe
Maximum Energy Product 20°C	BH max, min	400	kJ/m ³	50.3	MGOe
	BH max, nom	425	kJ/m ³	53.4	MGOe
Reversible Temperature Coefficient ¹⁾	α Br nom	-0.100 ~ -0.120	%/°C		
	β HcJ nom	-0.51 ~ -0.66	%/°C		

material properties (typical values)

Max. Operating Temperature ²⁾	T max	180	°C		
Density	ρ	7.55	g/cm ³		
Permeability 20°C	μ _r	1.05			
Vickers Hardness		500 - 600	HV		
Modulus of Elasticity	E	150 - 200	kN/mm ²		
Compressive Strength		1000 - 1100	N/mm ²		
Flexural Strength		250	N/mm ²		
Expansion Coefficient		-	10 ⁻⁶ /K		
Expansion Coefficient in direction of anisotropy	⊥	-3 - 0	10 ⁻⁶ /K		
	//	4 - 9	10 ⁻⁶ /K		
Specific Electric Resistance	ρ _{el}	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.