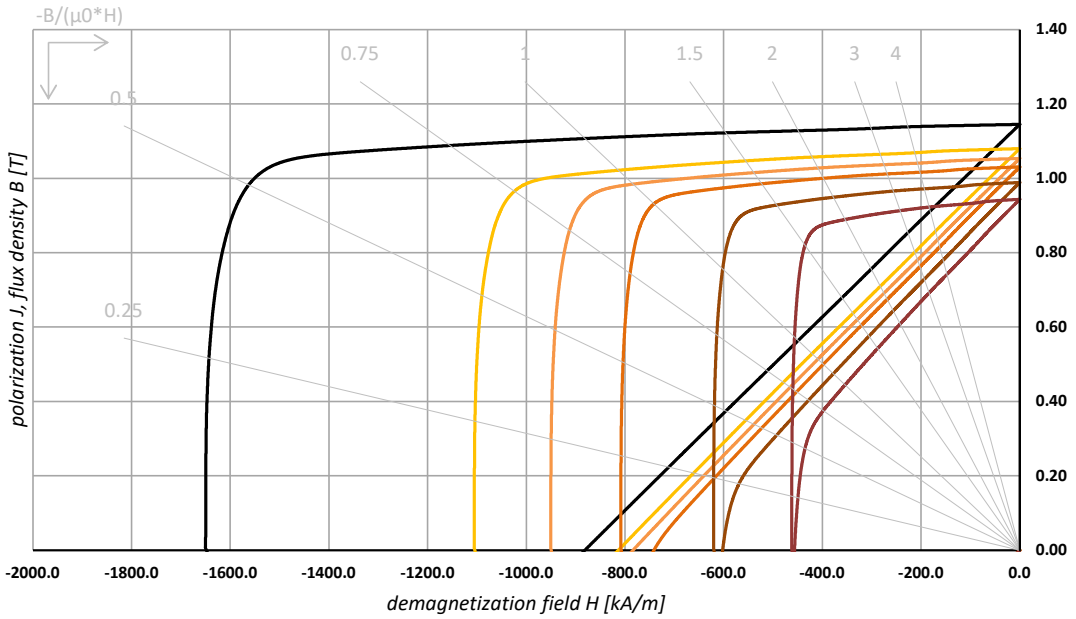
BOMATEC
MORE THAN JUST MAGNETS

BMNHPa-31SH(R)

NdFeB hot pressed, radial anisotropy



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

magnetic properties					
Remanence 20°C	Br min	1.100	T	11.0	kG
	Br nom	1.145	T	11.5	kG
Coercitivity 20°C	HcB min	815	kA/m	10.2	kOe
	HcB nom	880	kA/m	11.1	kOe
Intrinsic Coercitivity 20°C	HcJ min	1600	kA/m	20.1	kOe
	HcJ nom	1650	kA/m	20.7	kOe
Maximum Energy Product 20°C	BH max, min	230	kJ/m^3	28.9	MGOe
	BH max, nom	246	kJ/m^3	30.9	MGOe
Reversible Temperature Coefficient [1]	α Br nom	-0.085 ~ -0.120	%/°C		
	β HcJ nom	-0.43 ~ -0.57	%/°C		
material properties (typical values)					
Max. Operating Temperature [2]	T max	180	°C		
Density	ρ	7.6	g/cm^3		
Permeability 20°C	μr	1.05			
Vickers Hardness		750	HV		
Modulus of Elasticity	E	150	kN/mm^2		
Compressive Strength		750	N/mm^2		
Flexural Strength		200	N/mm^2		
Expansion Coefficient		-	$10^{-6}/K$		
Expansion Coefficient in direction of anisotropy	⊥	-1 ~ 0	$10^{-6}/K$		
	//	1 ~ 2	$10^{-6}/K$		
Specific Electric Resistance	ρel	1.35	μΩ·m		
Specific Heat Capacity	c	550	J/(kg·K)		
Thermal Conductivity	λ	5	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.

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