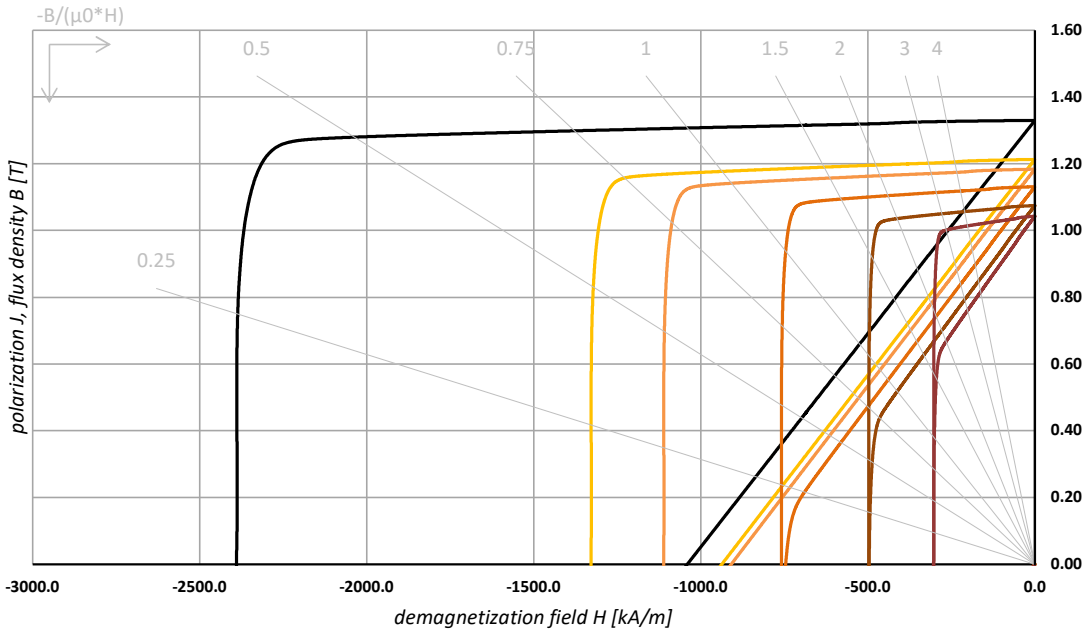
BOMATEC
MORE THAN JUST MAGNETS

BMN-42EH (GBD)

NdFeB sintered



Temperature in [°C]:		**20.0**	100.0	120.0	150.0	180.0	200.0
magnetic properties							
Remanence 20°C	Br min	1.280	T	12.8	kG		
	Br nom	1.330	T	13.3	kG		
Coercitivity 20°C	HcB min	981	kA/m	12.3	kOe		
	HcB nom	1023	kA/m	12.9	kOe		
Intrinsic Coercitivity 20°C	HcJ min	2387	kA/m	30.0	kOe		
	HcJ nom	2390	kA/m	30.0	kOe		
Maximum Energy Product 20°C	BH max, min	318	kJ/m^3	39.9	MGOe		
	BH max, nom	334	kJ/m^3	42.0	MGOe		
Reversible Temperature Coefficient [1]	α Br nom	-0.100 ~ -0.120	%/°C				
	β HcJ nom	-0.47 ~ -0.62	%/°C				
material properties (typical values)							
Max. Operating Temperature [2]	T max	200	°C				
Density	ρ	7.55	g/cm^3				
Permeability 20°C	μr	1.05					
Vickers Hardness		500 - 600	HV				
Modulus of Elasticity	E	150 - 200	kN/mm^2				
Copressive 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	ρel	1.2 - 1.6	μΩ·m				
Specific Heat Capacity	c	440	J/(kg·K)				
Thermal Conductivity	λ	8.0 - 10.0	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.

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