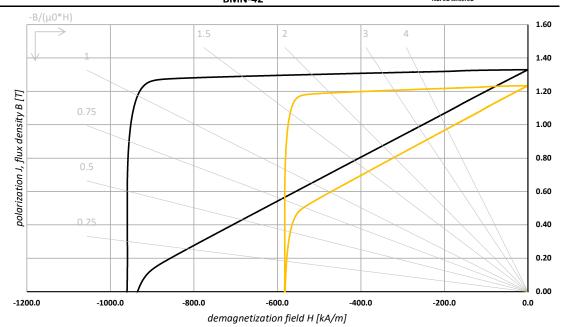


BMN-42 NdFeB sintered



Temperature in [°C]: **20.0** 80.0

magnetic properties					
magnetic properties					1.0
Remanence 20°C	Br min	1.290	Т	12.9	kG
	Br nom	1.330	Т	13.3	kG
Coercitivity 20°C	HcB min	908	kA/m	11.4	kOe
	HcB nom	925	kA/m	11.6	kOe
Intrinsic Coercitivity 20°C	HcJ min	955	kA/m	12.0	kOe
	HcJ nom	960	kA/m	12.1	kOe
Maximum Energy Product 20°C	BH max, min	318	kJ/m³	39.9	MGOe
	BH max, nom	334	kJ/m³	42.0	MGOe
Reversible Temperature Coefficient 1)	α Br nom	-0.100 ~ -0.120	%/°C		
	β HcJ nom	-0.64 ~ -0.70	%/°C		
material properties (typical values)					
Max. Operating Temperature <sup>2)</sup>	T max	80	°C		
Density	ρ	7.55	g/cm <sup>3</sup>		
Permeability 20°C	μr	1.05			
Vickers Hardness		500 - 600	HV		
Modulus of Elasticity	E	150 - 200	kN/mm <sup>2</sup>		
Copressive Strength		1000 - 1100	N/mm <sup>2</sup>		
Flexural Strength		250	N/mm <sup>2</sup>		
Expansion Coefficient		-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of	1	-3 - 0	10 <sup>-6</sup> /K		
anisotropy	<del></del>	4 - 9	10 <sup>-6</sup> /K		
Specific Electric Resistance	ρel	1.2 - 1.6	μΩ <sup>·</sup> m		
Specific Heat Capacity	c	440	J/(kg <sup>·</sup> K)		
Thermal Conductivity	λ	8.0 - 10.0	W/m <sup>·</sup> K		

<sup>1)</sup> The shown temperature coefficients are nominal reference values only . They can vary for different temperatures and don't need to be linear.

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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<sup>2)</sup> The maximum operating temperature is depending on the magnet shape, size and on the specific application.