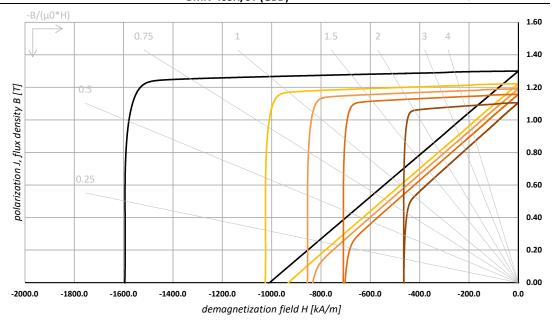




## BMN-40SH/ST (GBD)

NdFeB sintered, corrosion & temperature stable



Temperature in [°C]:	20.0	80.0	100.0	120.0	150.0	
magnetic properties						
Damas 20°C		Br min	1.260	Т	12.6	kG
Remanence 20°C		Br nom	1.300	Т	13.0	kG
Coercitivity 20°C		HcB min	939	kA/m	11.8	kOe
		HcB nom	995	kA/m	12.5	kOe
Intrinsic Coercitivity 20°C		HcJ min	1592	kA/m	20.0	kOe
		HcJ nom	1595	kA/m	20.0	kOe
Maximum Energy Product 20°C		BH max, min	302	kJ/m³	37.9	MGOe
		BH max, nom	318	kJ/m³	39.9	MGOe
Reversible Temperature Coefficient <sup>1)</sup>		α Br nom	-0.095 ~ -0.115	%/°C		
		β HcJ nom	-0.52 ~ -0.64	%/°C		
material properties (typical	values)					
Max. Operating Temperature <sup>2)</sup>		T max	150	°C		
Density		ρ	7.55	g/cm <sup>3</sup>		
Permeability 20°C		μr	1.05	<u> </u>		
Vickers Hardness			500 - 600	HV		
Modulus of Elasticity		E	150 - 200	kN/mm <sup>2</sup>		
Compressive Strength			1000 - 1100	N/mm²		
Flexural Strength			250	N/mm²		
Expansion Coefficient			-	10 <sup>-6</sup> /K		
Expansion Coefficient in direction of		L	-3 - 0	10 <sup>-6</sup> /K		
anisotropy		//	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·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.