



# Spacemagnets Europe GmbH

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**N-40UH**

## Sintered NdFeB-Magnets

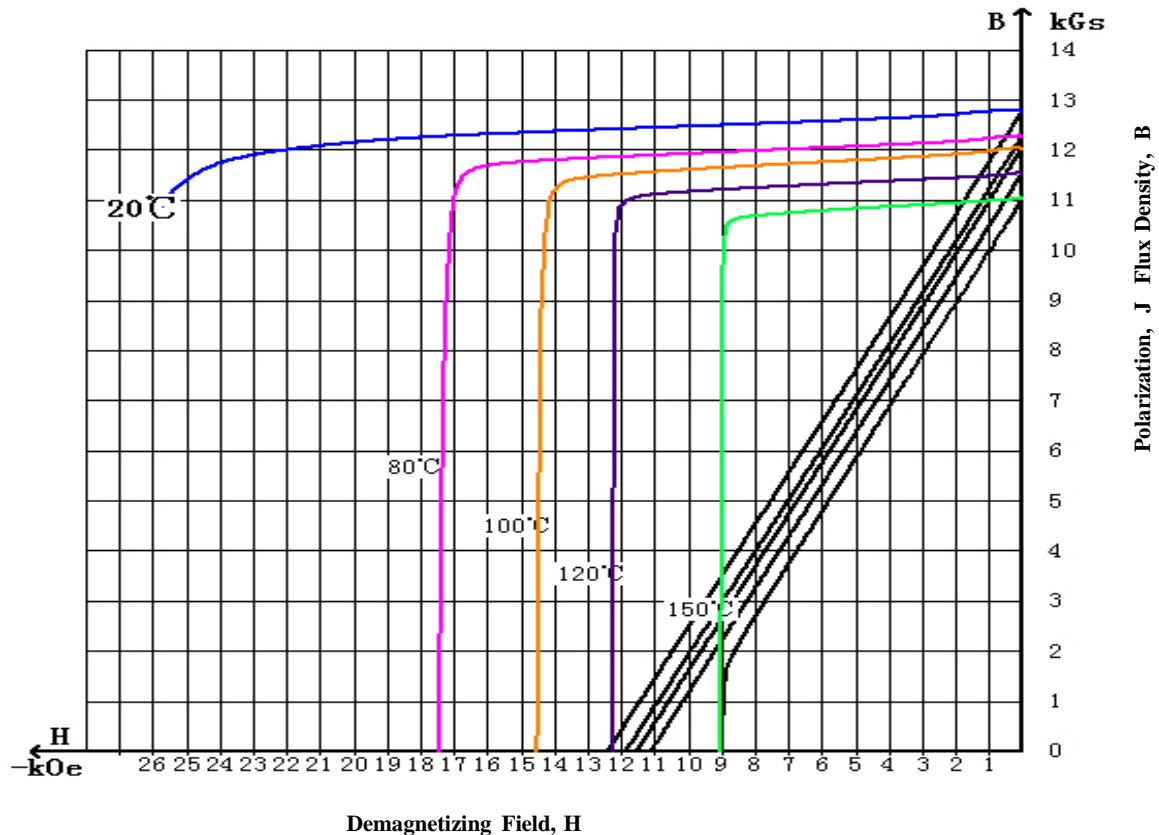
A neodymium magnet (also known as NdFeB, NIB or Neo magnet), the most widely used type of rare-earth magnet, is a permanent magnet made from an alloy of neodymium, iron and boron to form the Nd<sub>2</sub>Fe<sub>14</sub>B tetragonal crystalline structure. NdFeB-magnets are the strongest type of permanent magnet commercially available.

Magnetic Properties	Characteristic	Unit	Min	Nominal	Max
	<b>Br</b> Residual Induction		Gauss	13700	13950
		mT	1370	1395	1420
<b>Hcb</b> Coercivity		Oersteds	12700		
		KA/M	1011		
<b>Hcj</b> Intrinsic Coercivity		Oersteds	17000		
		KA/M	1353		
<b>BHmax</b> Maximum Energy Product		MGOe	46	47.5	49
		KJ/M <sup>3</sup>	366	378	390

Thermal Properties	Characteristic	Unit	C//	C⊥
	Reversible Temperature Coefficients <sup>(1)</sup>			
Of Induction, α ( Br)		%/°C		-0.12
Of Coercivity, β ( Hcj)		%/°C		-0.605
Coefficient of Thermal Expansion <sup>(2)</sup>		ΔL/L per °C×10 <sup>-6</sup>	7.5	-0.1
Thermal Conductivity		W/m.K		7.6
Specific Heat		J/kg.K		410
Curie Temperature, Tc		°C		310
Other Properties	Flexural Strength	psi		41300
		Mpa		285
	Density	g/cm <sup>3</sup>		7.6
	Hardness, Vickers	Hv		620
	Electrical Resistivity	μΩ.cm		180

Notes: (1) Coefficients measured between 20 and 150 °C  
 (2) Between 20 and 150 °C (3) Between 20 and 140 °C

## Material: N-40UH



1KA/M = 12.566 Oe

1Koe = 79.577 KA/M

10KGS = 1 Tesla

**Notes:** The material data and demagnetization curves shown above represent typical properties that may vary due to product shape and size. Demagnetization curves show nominal Br and minimum Hcj. Magnets can be supplied thermal stabilized or magnetically calibrated to customer specifications. Additional grades are available, Please contact the factory for information.