Spacemagnets Europe GmbH

Spacemagnets Serve the World

N45

Sintered NdFeB-Magnets

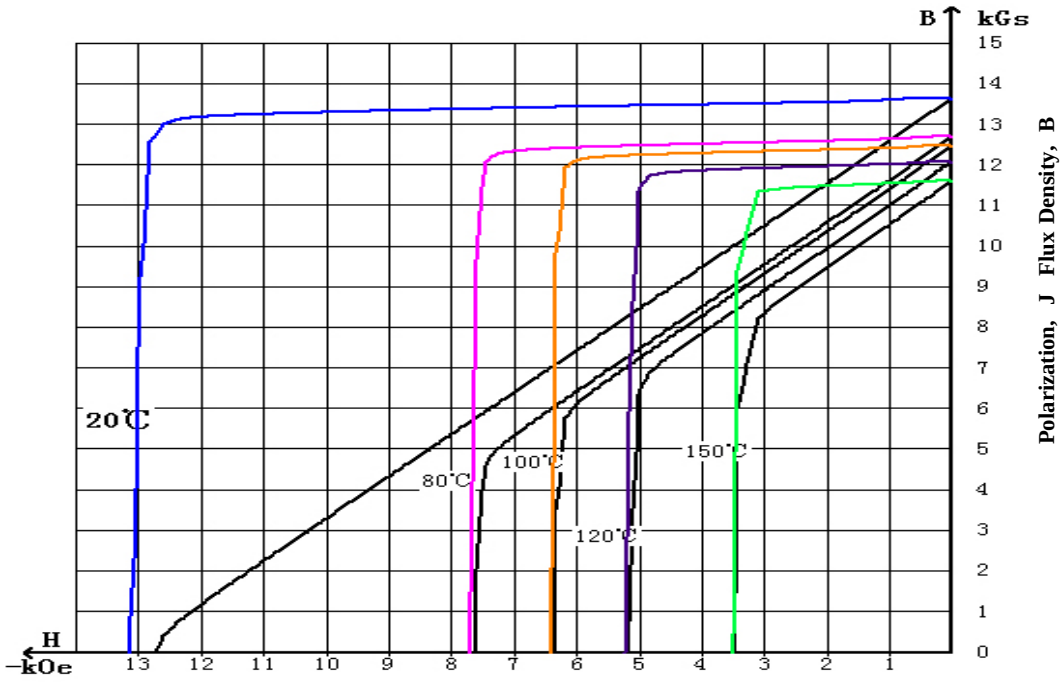
A neodymium magnet (also known as NdFeB, NIB or Neo magnet), the most widely used type of rare-earth magnet, is a permanent magnet made from an alloy of neodymium, iron and boron to form the Nd2Fe14B tetragonal crystalline structure. NdFeB-magnets are the strongest type of permanent magnet commercially available.

	Characteristic	Unit	Min	Nominal	Max
Magnetic Properites	**Br** Residual Induction	Gauss	13200	13500	13800
		mT	1320	1350	1380
	Hcb Coercivity	Oersteds	11600		
		KA/M	923		
	Hcj Intrinsic Coercivity	Oersteds	12000		
		KA/M	955		
	BHmax Maximum Energy Product	MGOe	43	44.5	46
		KJ/M^3	342	354	366

	Characteristic	Unit	C//	C⊥
Thermal Properites	Reversible Temperature Coefficients (1)			
	Of Induction, α (Br)	%/℃	-0.12	
	Of Coercivity, β (Hcj)	%/℃	-0.750	
	Coefficient of Thermal Expansion (2)	△L/L per ℃x10^{-6}	7.5	-0.1
	Thermal Conductivity	kcal/mhr℃	7.6	5.8
	Specific Heat (3)	cal/g℃	0.11	
	Curie Temperature, Tc	℃	310	
Other Properites	Flexural Strength	psi	41300	
		Mpa	285	
	Density	g/cm3	7.6	
	Hardness, Vickers	Hv	620	
	Electrical Resistivity	μΩ.cm	180	

Notes: (1) Coefficients measured between 20 and 80 ℃
(2) Between 20 and 180 ℃ (3) Between 20 and 140 ℃

Material: N45



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.