

Neodymium Iron Boron Magnets Datasheet

Neodímium mágnesek főbb műszaki adatai

Characteristic	Symbol	Unit	Value
Density	D	g/cm	7.5
Vickers Hardness	Hv	D.P.N	570
Compression Strength	C.S	N/mm ²	780
Coefficient of Thermal Expansion	C//	10 ⁻⁶ /°C	3.4
	C⊥	10 ⁻⁶ /°C	-4.8
Electrical Resistivity	ρ	μΩ.cm	150
Temperature coefficient of resistivity	α	10 ⁻⁴ /°C	2
Electrical Conductivity	σ	10 ⁶ S/m	0.667
Thermal Conductivity	k	kCal/(m.h.°C)	7.7
Specific Heat Capacity	c	kCal/(kg.°C)	0.12
Tensile Strength	σ _{UTS} or S _U	kg/mm ²	8
Young's Modulus	λ / E	1011N/m ²	1.6
Flexural Strength	β	10-12m ² /N	9.8
Compressibility	σ	10-12m ² /N	9.8
Rigidity	E.I	N/m ²	0.64
Poisson's Ratio	ν		0.24
Curie Temperature	Tc	°C	310

PLATING APPLIED	Overall Thickness (1 micron = 1/1000th mm) (1 micron = 0.03937 mil) (1 inch = 1000 mil)	Pressure Cooker Test (PCT) Test is:- 2 bar, 120°C and 100% RH (hours until corrosion could start to be noted)	Salt Spray Test Test is:- 5% NaCl solution at 35°C (hours until corrosion could start to be noted)
Nickel Copper Nickel (NiCuNi)	15-21 microns	48 hours	24 hours
NiCu + Black Nickel	15-21 microns	48 hours	24 hours
NiCuNi + Black Epoxy	20-28 microns	72 hours	48 hours
NiCuNi + Gold	16-23 microns	72 hours	36 hours
NiCuNi + Silver	16-23 microns	48 hours	24 hours
Zinc	7-15 microns	24 hours	12 hours

Anyag jelölés		Br		Hc (Hcb)		Hci (Hcj)		BHmax	
		mT	G	kA/m	Oe	kA/m	Oe	kJ/m ³	MGOe
N27		1,030	10,300	796	10,000	955	12,000	199	25
N30		1,080	10,800	796	10,000	955	12,000	223	28
N33		1,130	11,300	836	10,500	955	12,000	247	31
N35		1,170	11,700	867	10,900	955	12,000	263	33
N38		1,210	12,100	899	11,300	955	12,000	287	36
N40		1,240	12,400	923	11,600	955	12,000	302	38
N42		1,280	12,800	923	11,600	955	12,000	318	40
N45		1,320	13,200	875	11,000	955	12,000	342	43
N48		1,380	13,800	836	10,500	875	11,000	366	46
N50		1,400	14,000	796	10,000	875	11,000	382	48
N52		1,430	14,300	796	10,000	875	11,000	398	50
N27	M	1,030	10,300	796	10,000	1,114	14,000	199	25
N30	M	1,080	10,800	796	10,000	1,114	14,000	223	28
N33	M	1,130	11,300	836	10,500	1,114	14,000	247	31
N35	M	1,170	11,700	867	10,900	1,114	14,000	263	33
N38	M	1,210	12,100	899	11,300	1,114	14,000	286	36
N40	M	1,240	12,400	923	11,600	1,114	14,000	302	38
N42	M	1,280	12,800	923	11,600	1,114	14,000	318	40
N45	M	1,320	13,200	875	11,000	1,114	14,000	342	43
N48	M	1,370	13,700	1,035	13,000	1,114	14,000	366	46
N50	M	1,400	14,000	1,035	13,000	1,114	14,000	382	48
N27	H	1,030	10,300	796	10,000	1,353	17,000	199	25
N30	H	1,080	10,800	796	10,000	1,353	17,000	223	28
N33	H	1,130	11,300	836	10,500	1,353	17,000	247	31
N35	H	1,170	11,700	867	10,900	1,353	17,000	263	33
N38	H	1,210	12,100	899	11,300	1,353	17,000	286	36
N40	H	1,240	12,400	923	11,600	1,353	17,000	302	38
N42	H	1,280	12,800	955	12,000	1,353	17,000	318	40

Anyag jelölés		Br		Hc (Hcb)		Hci (Hcj)		BHmax	
		mT	G	kA/m	Oe	kA/m	Oe	kJ/m ³	MGOe
N45	H	1,320	13,200	995	12,500	1,353	17,000	342	43
N48	H	1,370	13,700	995	12,500	1,353	17,000	366	46
N50	H	1,400	1,400	995	12,500	1353	17,000	382	48
N27	SH	1,030	10,300	804	10,100	1,592	20,000	199	25
N30	SH	1,080	10,800	804	10,100	1,592	20,000	223	28
N33	SH	1,130	11,300	844	10,600	1,592	20,000	247	31
N35	SH	1,170	11,700	875	11,000	1,592	20,000	263	33
N38	SH	1,210	12,100	907	11,400	1,592	20,000	286	36
N40	SH	1,240	12,400	939	11,800	1,592	20,000	302	38
N42	SH	1,280	12,800	963	12,100	1,592	20,000	318	40
N45	SH	1,320	13,200	1,003	12,600	1,592	20,000	342	43
N27	UH	1,030	10,300	764	9,600	1,989	25,000	199	25
N30	UH	1,080	10,800	812	10,200	1,989	25,000	223	28
N33	UH	1,130	11,300	851	10,700	1,989	25,000	247	31
N35	UH	1,170	11,700	875	11,000	1,989	25,000	263	33
N38	UH	1,210	12,100	875	11,000	1,989	25,000	287	36
N40	UH	1,240	12,400	899	11,300	1,989	25,000	302	38
N42	UH	1,280	1,280	875	11,000	1,989	2,500	318	40
N27	EH	1,030	10,300	780	9,800	2,387	30,000	199	25
N30	EH	1,080	10,800	812	10,200	2,387	30,000	223	28
N33	EH	1,130	11,300	836	10,500	2,387	30,000	247	31
N35	EH	1,170	11,700	875	11,000	2,387	30,000	263	33
N38	EH	1,220	12,200	899	11,300	2,387	30,000	287	36
N27	VH / AH	1,030	10,300	772	9,700	2,785	35,000	199	25
N30	VH / AH	1,080	10,800	812	10,200	2,785	35,000	223	28
N33	VH / AH	1,140	11,400	851	10,700	2,785	35,000	247	31
N35	VH / AH	1,170	11,700	875	11,000	2,785	35,000	263	33