

Sintered Neodym (NdFeB)

Material Grade



Main Properties	Remanence		Coercive Force		Intrinsic Coercive Force		Max. Energy Product		Rev.Temp.Coef. of Induction / Coercivity		Working Temperature
	Br		HcB		HcJ		BH max				
Grade	Typical mT	Typical Gauss	min kA/m	min Oersted	min kA/m	min Oersted	Typical kJ/m3	Typical MGOe	α (Br) %/°C	α (HcJ) %/°C	maximum °C
N30	1105	11050	796	10000	955	12000	235	30	-0.12	-0.750	80°C
N33	1150	11500	836	10500	955	12000	259	33	-0.12	-0.750	80°C
N35	1210	12000	860	10800	955	12000	283	35	-0.12	-0.750	80°C
N38	1260	12600	860	10800	955	12000	306	38	-0.12	-0.750	80°C
N40	1285	12850	923	11600	955	12000	318	40	-0.12	-0.750	80°C
N42	1315	13150	860	10800	955	12000	334	42	-0.12	-0.750	80°C
N45	1350	13500	860	10800	955	12000	350	44	-0.12	-0.750	80°C
N48	1400	14000	836	10500	955	12000	374	47	-0.12	-0.750	80°C
N50	1425	14250	836	10500	955	12000	390	49	-0.12	-0.750	80°C
N52	1450	14500	836	10500	876	11000	406	51	-0.12	-0.750	80°C
N55	1490	14900	716	9000	876	11000	430	54	-0.12	-0.750	80°C
N33 M	1175	11750	836	10500	1114	14000	267	34	-0.12	-0.675	100°C
N35 M	1210	12100	869	10900	1114	14000	283	35	-0.12	-0.675	100°C
N38 M	1260	12600	899	11300	1114	14000	307	39	-0.12	-0.675	100°C
N40 M	1285	12850	923	11600	1114	14000	322	40	-0.12	-0.675	100°C
N42 M	1315	13150	955	12000	1114	14000	338	42	-0.12	-0.675	100°C
N45 M	1350	13500	971	12200	1114	14000	354	44	-0.12	-0.675	100°C
N48 M	1395	13950	995	12500	1114	14000	378	48	-0.12	-0.675	100°C
N50 M	1415	14150	1035	13000	1114	14000	390	49	-0.12	-0.675	100°C
N52 M	1445	14450	995	12500	1035	13000	406	51	-0.12	-0.675	100°C

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Grade	Typical mT	Typical Gauss	min kA/m	min Oersted	min kA/m	min Oersted	Typical kJ/m3	Typical MGOe	α (Br) %/°C	α (HcJ) %/°C	maximum °C
N30 H	1105	11050	796	10000	1353	17000	235	30	-0.12	-0.605	120°C
N33 H	1175	11750	836	10500	1353	17000	267	34	-0.12	-0.605	120°C
N35 H	1210	12100	868	10900	1353	17000	283	35	-0.12	-0.605	120°C
N38 H	1260	12600	899	11300	1353	17000	307	39	-0.12	-0.605	120°C
N40 H	1285	12850	923	11600	1353	17000	322	40	-0.12	-0.605	120°C
N42 H	1300	13000	955	12000	1353	17000	330	41	-0.12	-0.605	120°C
N45 H	1350	13500	971	12200	1353	17000	354	44	-0.12	-0.605	120°C
N48 H	1390	13900	1011	12700	1353	17000	378	48	-0.12	-0.605	120°C
N50 H	1415	14150	1035	13000	1274	16000	390	49	-0.12	-0.605	120°C
N30 SH	1125	11250	811	10200	1592	20000	243	31	-0.12	-0.535	150°C
N33 SH	1175	11750	844	10600	1592	20000	267	34	-0.12	-0.535	150°C
N35 SH	1210	12100	876	11000	1592	20000	283	35	-0.12	-0.535	150°C
N38 SH	1260	12600	907	11400	1592	20000	307	39	-0.12	-0.535	150°C
N40 SH	1285	12850	939	11800	1592	20000	322	40	-0.12	-0.535	150°C
N42 SH	1310	13100	955	12000	1592	20000	330	41	-0.12	-0.535	150°C
N45 SH	1350	13500	979	12300	1592	20000	354	44	-0.12	-0.535	150°C
N48 SH	1390	13900	995	12500	1512	19000	374	47	-0.12	-0.535	150°C
N28 UH	1075	10750	764	9600	1990	25000	227	29	-0.12	-0.465	180°C
N30 UH	1125	11250	812	10200	1990	25000	243	31	-0.12	-0.465	180°C
N33 UH	1175	11750	852	10700	1990	25000	267	34	-0.12	-0.465	180°C

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	Br		HcB		HcJ		BH max				
Grade	Typical mT	Typical Gauss	min kA/m	min Oersted	min kA/m	min Oersted	Typical kJ/m3	Typical MGOe	α (Br) %/°C	α (HcJ) %/°C	maximum °C
N35 UH	1210	12100	860	10800	1990	25000	283	35	-0.12	-0.465	180°C
N38 UH	1260	12600	876	11000	1990	25000	307	39	-0.12	-0.465	180°C
N40 UH	1285	12850	915	11500	1990	25000	318	40	-0.12	-0.465	180°C
N42 UH	1310	13100	955	12000	1990	25000	330	41	-0.12	-0.465	180°C
N45 UH	1350	13500	995	12500	1914	24000	358	45	-0.12	-0.465	180°C
N28 EH	1085	10850	780	9800	2388	30000	227	29	-0.12	-0.420	200°C
N30 EH	1125	11250	812	10200	2388	30000	243	31	-0.12	-0.420	200°C
N33 EH	1165	11650	820	10300	2388	30000	267	34	-0.12	-0.420	200°C
N35 EH	1200	12000	836	10500	2388	30000	279	35	-0.12	-0.420	200°C
N38 EH	1235	12350	899	11300	2388	30000	303	38	-0.12	-0.420	200°C
N40 EH	1270	12700	915	11500	2388	30000	314	39	-0.12	-0.420	200°C
N42 EH	1310	13100	971	12200	2308	29000	326	41	-0.12	-0.420	200°C
N28 AH	1075	10750	780	9800	2706	34000	223	28	-0.12	-0.393	220°C
N30 AH	1120	11200	812	10200	2706	34000	229	30	-0.12	-0.393	220°C
N33 AH	1140	11400	812	10200	2706	34000	231	29	-0.12	-0.393	220°C
N35 AH	1195	11950	883	11100	2706	34000	275	35	-0.12	-0.393	220°C
N38 AH	1240	12400	923	11600	2626	33000	299	38	-0.12	-0.393	220°C

* The material data shown above represent properties that may vary due to product shape and size.

Plating Characteristics

Plating Type	Overall Thickness	Salt Spray Test	Pressure Cooker Test
Grade	µm	hours	hours
NiCuNi (Nickel Copper Nickel)	15 - 21	24	48
NiCuNi + Black Nickel	15 - 21	24	48
NiCuNi + Epoxy	20 - 28	48	72
NiCuNi + Gold	16 - 23	36	72
NiCuNi + Silver	16 - 23	24	48
Zinc	17 - 15	12	24

Typical Physical Properties

Property	um	value
Density	kg/m ³	7.5×10^3
Bending Strength	kg/m ²	2.95×10^3
Compressive Strength	kg/m ²	9.6×10^3
Vickers Hardness (Hv)	Hv	560 - 600
Electrical Resistivity	m	1.4×10^{-6}
Thermal Expansion Coefficient parallel to M	//M	7.9×10^{-6}
Thermal Expansion Coefficient perpendicular to M	-I M	-1.7×10^{-6}
Curie Temperature	°C	345