

NdFeB Magnet

Neodymium Iron Boron Magnet Materials --Sintered NdFeB Magnets

Sintered NdFeB magnet is the most permanent magnet in the contemporary. Due to it have good remanence, coercivity and high performance, sintered NdFeB magnet have best magnetic, can support about 640 times of its weight. Now it have been widely used in electronics, electrical, mechanical, medical equipment and others.

High Energy Density for NdFeB magnet, that can use in modern industry and electronic technology, so that the instrumentation, auto, electric, magnetic separation equipment can change to smaller, lighter, thinner

Involving the sintering of power compacts under vacuum

- 1、Ginding and slicing possible
- 2、Very reactive with moisture and oxygen
- 3、Coating may be applied depending on the expected enviroment

Application : applied to various electronic motors,engineering equipment,medical equipment ,audio apparatus, and household appliances.

Magnetic Properties

Typical Magnetic Performance for Sintered NdFeB Magnet

grade	Remanence Br		Coercive force Hcb		Intrinsic Coercive force Hcj		Maximum Energy (BH)max		Tw.
	KGs	T	KOe	KA/m	KOe	KA/m	MGOe	KJ/m3	(°C)
N30	10.8-11.2	1.08-1.12	≥10.00	≥796	≥12	≥ 955	28-31	223-246	≤80
N33	11.3-11.7	1.13-1.17	≥10.50	≥836	≥12	≥ 955	31-33	247-263	≤80
N35	11.7-12.1	1.17-1.21	≥10.80	≥860	≥12	≥ 955	33-35	263-279	≤80

N38	12.2-12.6	1.22-1.26	≥11.30	≥900	≥12	≥ 955	36-38	287-303	≤80
N40	12.5-12.8	1.25-1.28	≥11.40	≥908	≥12	≥ 955	38-40	303-318	≤80
N42	12.8-13.2	1.28-1.32	≥11.50	≥915	≥12	≥ 955	40-42	326-342	≤80
N45	13.2-13.7	1.32-1.37	≥11.60	≥924	≥12	≥ 955	43-45	342-358	≤80
N48	13.7-14.2	1.37-1.42	≥11.60	≥923	≥12	≥ 955	46-48	367-383	≤80
N50	14.1-14.5	1.41-1.45	≥10.00	≥796	≥11	≥ 875	48-50	383-398	≤80
N30M	10.8-11.2	1.08-1.12	≥10.00	≥796	≥14	≥1114	28-31	223-246	≤100
N33M	11.3-11.7	1.13-1.17	≥10.50	≥836	≥14	≥1114	31-33	247-263	≤100
N35M	11.7-12.0	1.17-1.20	≥10.90	≥868	≥14	≥1114	33-35	263-279	≤100
N38M	12.2-12.6	1.22-1.26	≥11.30	≥900	≥14	≥1114	36-38	287-303	≤100
N40M	12.6-12.9	1.26-1.29	≥11.60	≥924	≥14	≥1114	38-40	303-318	≤100
N42M	12.9-13.2	1.29-1.32	≥12.00	≥955	≥14	≥1114	40-42	326-342	≤100
N45M	13.3-13.5	1.33-1.35	≥12.20	≥971	≥14	≥1114	43-45	342-358	≤100
N48M	13.8-14.0	1.38-1.40	≥12.90	≥1027	≥14	≥1114	46-48	367-383	≤100
N30H	10.8-11.2	1.08-1.12	≥10.00	≥794	≥17	≥1353	28-30	223-239	≤120
N33H	11.4-11.7	1.14-1.17	≥10.50	≥836	≥17	≥1353	31-33	247-263	≤120
N35H	11.7-12.0	1.17-1.20	≥10.90	≥868	≥17	≥1353	33-35	263-279	≤120
N38H	12.2-12.6	1.22-1.26	≥11.30	≥900	≥17	≥1353	36-38	287-303	≤120
N40H	12.6-12.8	1.26-1.28	≥11.60	≥824	≥17	≥1353	38-40	303-318	≤120
N42H	12.8-13.0	1.28-1.30	≥12.00	≥955	≥17	≥1353	40-42	326-342	≤120
N45H	13.3-13.5	1.33-1.35	≥12.20	≥971	≥17	≥1353	43-45	342-358	≤120
N30SH	10.8-11.2	1.08-1.12	≥10.10	≥804	≥20	≥1595	28-30	223-239	≤150
N33SH	11.4-11.7	1.14-1.17	≥10.60	≥844	≥20	≥1595	31-33	247-263	≤150
N35SH	11.7-12.0	1.17-1.20	≥11.00	≥876	≥20	≥1595	33-35	263-279	≤150

N38SH	12.2-12.5	1.22-1.25	≥11.40	≥908	≥20	≥1595	36-38	287-303	≤150
N40SH	12.5-12.7	1.25-1.27	≥11.80	≥939	≥20	≥1595	38-40	303-318	≤150
N42SH	12.8-13.0	1.28-1.30	≥12.00	≥955	≥20	≥1595	40-42	326-342	≤150
N45SH	13.3-13.5	1.33-1.35	≥12.20	≥971	≥20	≥1595	43-45	342-358	≤150
N28UH	10.4-10.8	1.04-1.08	≥ 9.80	≥780	≥25	≥1990	26-28	207-223	≤180
N30UH	10.8-11.2	1.08-1.12	≥10.10	≥804	≥25	≥1990	28-30	223-239	≤180
N33UH	11.3-11.5	1.13-1.15	≥10.60	≥844	≥25	≥1990	31-33	247-263	≤180
N35UH	11.7-11.9	1.17-1.19	≥11.00	≥876	≥25	≥1990	33-35	263-279	≤180
N38UH	12.2-12.5	1.22-1.25	≥11.40	≥908	≥25	≥1990	36-38	287-303	≤180
N40UH	12.5-12.7	1.25-1.27	≥11.80	≥939	≥25	≥1990	38-40	303-318	≤180
N42UH	12.8-13.0	1.28-1.30	≥12.00	≥955	≥25	≥1990	40-42	326-342	≤180
N28EH	10.4-10.8	1.04-1.08	≥ 9.80	≥780	≥30	≥2388	26-28	207-223	≤200
N30EH	10.8-11.2	1.08-1.12	≥10.10	≥804	≥30	≥2388	28-30	223-239	≤200
N33EH	11.3-11.5	1.13-1.15	≥10.60	≥844	≥30	≥2388	31-33	247-263	≤200
N35EH	11.7-11.9	1.17-1.19	≥11.00	≥876	≥30	≥2388	33-35	263-279	≤200
N28AH	10.4-10.8	1.04-1.08	≥ 9.80	≥780	≥35	≥2785	26-29	207-231	≤220
N30AH	10.8-11.2	1.08-1.12	≥10.10	≥804	≥35	≥2785	28-31	223-246	≤220
N33AH	11.3-11.7	1.13-1.17	≥10.30	≥820	≥35	≥2785	31-33	247-263	≤220
N35AH	11.7-12.1	1.17-1.21	≥10.80	≥860	≥35	≥2785	31-35	247-279	≤220

Note: Curie temperature and temperature coefficient are for reference only, but not as inspection base.

Physical Properties

Physical Properties of Sintered NdFeB:

Temp.Coeff.of Br	-0.11%/°C	Temp.Coeff.of Hc	-0.60%/°C
Density	7.4-7.6g/cm ³	Electrical Resistivity	114μΩ.cm
Vickers Hardness:	600Hv	Flexural Resistivity	25kg/mm
Tensile Strength:	8.0Kg/mm ²	Coeff. Of Thermal Expansion	4X10 ⁻⁶ /°C
Specific Heat	0.12Kcal/Kg	Thermal Conductivity	7.7kcal/[m.h.°C]
Young's Modulus	1.6X10 ¹¹ N/m ²	Rigidity	0.64N/m ²
Poisson's Ratio	0.24	Compressibility	9.8x10 ⁻¹² m ² /N
Curie Temperature	310-340°C		

Surface coating

All coating meets ROHS standard's requirements

plating type	plating thickness	color	SST test(hour)	PCT(hour)
Ni-Cu-Ni	10-30	Bright silver	≥96	≥48
Zinc	5-10	Dark silver	≥48	
Epoxy	10-30	black	≥96	≥24

We also supply the parylene coating, phosphate treatment based on customer's request

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