AlNiCo Magnets

Material:

A kind of alloy made of aluminum, nickel, cobalt and iron, some grades also contain copper, titanium and columbium.

Features:

High magnetic flux density, great time stability, high operating temperature up to 550 C , excellent resistance against corrosion and a typical hardness of 50 Rockwell C; the only possible machining is grinding; be casted to form a vast range of complex shapes and sizes at an economical cost, and be sintered to produce near net shape parts by powder metallurgy process; with changes to element analysis and heat treatment, the range of properties can be designed for specific application in casting process, while adjust materials and working techniques can produce well tailored parts to meet customers' specific requirements in sintering process.

Applications:

Precise instruments,motors,speaker, sensors,automotive, and holding system, the bonded alnico magnetic bearing is widely used as magnetic driven bearing of watt meter, High stability magnetic sensor and Automatic control surveying instrument.

Magnetic Characteristics of AlNiCo Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coefficient		Operating Temp.	MMPA
	B_r		H_{cB}		H_{cJ}		$(BH)_{max}$		TK(Br) %/K	TK(Hcj) %/K	T_w max	
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m³			C	
ISOTROPIC CAST ALNICO												
LN10	6.5	650	0.48	38	0.5	40	1.25	10	-0.035	-0.025	450	ALNICO 3
LNG12	7.5	750	0.56	45	0.58	46	1.5	12	-0.03	-0.02	450	ALNICO 2
LNGT18	5.5	550	1.13	90	1.21	97	2.25	18	-0.025	0.01	550	ALNICO 8
ANISOTROPIC CAST ALNICO												
LNG34	11	1100	0.63	50	0.65	52	4.25	34	-0.02	0.01	525	ALNICO 5
LNG37	11.8	1180	0.61	49	0.64	51	4.63	37	-0.02	0.01	525	
LNG40	12	1200	0.63	50	0.65	52	5	40	-0.02	0.01	525	
LNG44	12.5	1250	0.65	52	0.68	54	5.5	44	-0.02	0.01	525	
LNGT34	11.5	1150	0.73	58	0.75	60	3.5	28	-0.02	0.03	525	ALNICO 6
LNG52	13	1300	0.7	56	0.73	58	6.5	52	-0.02	0.03	525	ALNICO 5DG
LNG60	13.5	1350	0.73	58	0.75	60	7.5	60	-0.02	0.03	525	ALNICO 5-7
LNGT38	8	800	1.38	110	1.4	112	4.75	38	-0.025	0.01	550	ALNICO 8
LNGT40	8.5	850	1.44	115	1.46	117	5	40	-0.025	0.01	550	
LNGT44	9	900	1.44	115	1.46	117	5.5	44	-0.025	0.01	550	
LNGT36J	7.2	720	1.88	150	1.9	152	4.5	36	-0.025	0.01	550	ALNICO 8HC
LNGT60	10	1000	1.38	110	1.4	112	7.5	60	-0.025	0.01	550	ALNICO 9
LNGT72	10.5	1050	1.44	115	1.46	117	9	72	-0.025	0.01	550	
LNGT80	10.8	1080	1.5	120	1.53	122	10	80	-0.025	0.01	550	
ISOTROPIC SINTERED ALNICO												
FLNG10	6.5	650	0.5	40	0.53	42	1.25	10	-0.03	-0.02	450	ALNICO 3
FLNG12	7.5	750	0.56	45	0.58	46	1.5	12	-0.035	-0.025	450	ALNICO 2
FLNGT18	6	600	1.19	95	1.23	98	2.25	18	-0.025	0.01	550	ALNICO 8
FLNGT20	6.2	620	1.25	100	1.31	105	2.5	20	-0.025	0.01	550	
ANISOTROPIC SINTERED ALNICO												
FLNG34	11.5	1150	0.6	48	0.63	50	4.25	34	-0.02	0.01	525	ALNICO 5
FLNGT28	11	1100	0.73	58	0.75	60	3.5	28	-0.02	0.03	525	ALNICO 6
FLNGT36J	7.2	720	1.88	150	1.9	152	4.5	36	-0.025	0.01	550	ALNICO 8HC
FLNGT38	8	800	1.38	110	1.4	112	4.75	38	-0.025	0.01	550	ALNICO 8
FLNGT44	8.5	850	1.5	120	1.53	122	5.5	44	-0.025	0.01	550	
FLNGT48	9.2	920	1.56	125	1.59	127	6	48	-0.025	0.01	550	
BONDED ALNICO (BEARING)												
B-LNG7	3.1	310	1.00	79.63	1.30	103.5	0.85	6.77	-0.02	0.01	200	
B-LNG8	3.4	340	1.05	83.612	1.35	107.5	1.00	7.96	-0.02	0.01	200	

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.

Sintered NdFeB Magnets

Material:

Made of Nd, Fe, B and other metal elements.

Features:

The most powerful permanent magnet available today; high maximum product energy, good coercive force, high performance-price ratio; can be easily formed into various shapes and sizes without additional tool cost; being manufactured by a powder metallurgical process which involves the sintering of powder compacts under vacuum; be reactive with moisture and oxygen, so coating may be applied to protect against corrosion.

Applications:

Computers, mobile telephones, loudspeakers, motors, cars, medical instruments, etc.

Magnetic Characteristics of Sintered NdFeB Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coefficient		Operating Temp.
	B_r		H_{cB}		H_{cJ}		$(BH)_{max}$		TK(Br)	TK(Hcj)	T_w max
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m³	%/K	%/K	C
N35	11.7-12.1	1170-1210	≥10.9	≥868	≥12	≥955	33-36	263-287	-0.11	-0.6	80
N38	12.1-12.5	1210-1250	≥11.3	≥899	≥12	≥955	36-39	287-310	-0.11	-0.6	80
N40	12.4-12.8	1240-1280	≥11.6	≥923	≥12	≥955	38-41	302-326	-0.11	-0.6	80
N42	12.8-13.2	1280-1320	≥11.6	≥923	≥12	≥955	40-43	318-342	-0.11	-0.6	80
N45	13.2-13.8	1320-1380	≥11.0	≥876	≥12	≥955	43-46	342-366	-0.11	-0.6	80
N48	13.8-14.2	1380-1420	≥10.5	≥835	≥11	≥876	46-49	366-390	-0.11	-0.6	80
N50	14.0-14.5	1400-1450	≥10.0	≥835	≥11	≥876	47-51	376-408	-0.11	-0.6	60
N52	14.3-14.8	1430-1480	≥10.0	≥796	≥11	≥876	50-53	398-422	-0.11	-0.6	60
35M	11.7-12.1	1170-1210	≥10.9	≥868	≥14	≥1120	33-36	263-287	-0.01	-0.6	100
38M	12.1-12.5	1210-1250	≥11.3	≥899	≥14	≥1120	36-39	287-310	-0.01	-0.6	100
40M	12.4-12.8	1240-1280	≥11.6	≥923	≥14	≥1120	38-41	302-326	-0.01	-0.6	100
42M	12.8-13.2	1280-1320	≥11.6	≥923	≥14	≥1120	40-43	318-342	-0.01	-0.6	100
45M	13.2-13.8	1320-1380	≥11.0	≥876	≥14	≥1120	43-46	342-366	-0.01	-0.6	100
48M	13.7-14.3	1370-1430	≥13.0	≥1035	≥14	≥1120	45-49	360-392	-0.01	-0.6	100
50M	14.0-14.5	1400-1450	≥13.0	≥1033	≥14	≥1114	48-51	382-406	-0.01	-0.6	100
35H	11.7-12.1	1170-1210	≥10.9	≥868	≥17	≥1353	33-36	263-287	-0.01	-0.056	120
38H	12.1-12.5	1210-1250	≥11.3	≥899	≥17	≥1353	36-39	287-310	-0.01	-0.056	120
40H	12.4-12.8	1240-1280	≥11.6	≥923	≥17	≥1353	38-41	302-326	-0.01	-0.056	120
42H	12.8-13.2	1280-1320	≥12.0	≥955	≥17	≥1353	40-43	318-342	-0.01	-0.056	120
45H	13.2-13.6	1320-1360	≥12.5	≥1000	≥17	≥1353	43-47	344-376	-0.01	-0.056	120
48H	13.7-14.3	1370-1430	≥12.5	≥1000	≥17	≥1353	46-49	366-390	-0.01	-0.056	120
33SH	11.3-11.7	1130-1170	≥10.6	≥844	≥20	≥1592	31-34	247-272	-0.095	-0.056	150
35SH	11.7-12.1	1170-1210	≥11.0	≥876	≥20	≥1592	33-36	263-287	-0.095	-0.056	150
38SH	12.1-12.5	1210-1250	≥11.4	≥907	≥20	≥1592	36-39	287-310	-0.095	-0.056	150
40SH	12.4-12.8	1240-1280	≥11.8	≥939	≥20	≥1592	38-41	302-326	-0.095	-0.056	150
42SH	13.0-13.5	1300-1350	≥12.0	≥963	≥20	≥1600	39-43	312-344	-0.095	-0.056	150
45SH	13.2-13.8	1320-1380	≥12.6	≥1003	≥20	≥1592	43-46	342-366	-0.095	-0.056	150
30UH	10.8-11.3	1080-1130	≥10.2	≥812	≥25	≥1990	28-31	223-247	-0.09	-0.056	180
33UH	11.3-11.7	1130-1170	≥10.7	≥852	≥25	≥1990	31-34	247-271	-0.09	-0.056	180
35UH	11.7-12.1	1170-1210	≥11.0	≥876	≥25	≥1990	33-36	263-287	-0.09	-0.056	180
38UH	12.2-12.5	1220-1250	≥11.0	≥876	≥25	≥1990	36-39	287-310	-0.09	-0.056	180
40UH	12.5-12.8	1250-1280	≥11.3	≥899	≥25	≥1990	38-41	302-326	-0.09	-0.056	180
30EH	10.8-11.3	1080-1130	≥10.2	≥812	≥30	≥2388	28-31	223-247	-0.085	-0.056	200
33EH	11.3-11.7	1140-1180	≥10.5	≥835	≥30	≥2400	31-34	248-272	-0.085	-0.056	200
35EH	11.7-12.1	1170-1210	≥11.0	≥876	≥30	≥2400	33-36	263-287	-0.085	-0.056	200
38EH	12.2-12.5	1220-1250	≥11.3	≥899	≥30	≥2388	36-39	287-310	-0.085	-0.056	200

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.

Bonded NdFeB Magnets

Material:

Made by compression molding or injection molding the mixture of NdFeB magnetic powder and binder.

Features:

High magnetic properties and stable capability, high accuracy in dimension; high accuracy in size, can be formed into relatively complicated shapes; single-time molding, multi-pole orientation; injection molded magnet has a high mechanical strength and may be molded together with other matching parts; injection molded magnet usually does not require coating due to its better corrosion resistance, however coating is recommended for compression molded magnet due to its inherent porosity.

Applications:

Stepping motor, CD-ROM spindle motor, vibrating motor, electric expansion valve, air-conditioner motor etc.

Magnetic Characteristics of Bonded NdFeB Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coefficie	Operating Temp.
	B_r		H_{cB}		H_{cJ}		$(BH)_{max}$		TK(Br)	T_w max
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m³	%/K	C
Compression Molding NdFeB										
BNP-6	5.5-6.2	550-620	3.6-4.6	285-370	7.5-9.5	600-755	5.5-7.0	44-56	-0.13	100
BNP-8L	6.0-6.4	600-640	4.5-5.0	360-400	9.0-10.0	715-800	7.0-8.0	56-64	-0.13	110
BNP-8	6.2-6.9	620-690	4.8-5.6	385-445	8.0-10	640-800	8.0-9.0	64-72	-0.13	120
BNP-8SR	6.2-6.6	620-660	5.2-5.8	410-465	11.0-14	880-1120	8.0-9.0	64-72	-0.13	150
BNP-8H	6.1-6.5	610-650	5.2-5.7	410-455	15-18	1190-1440	8.0-9.0	64-72	-0.07	125
BNP-9	6.5-7.0	650-700	5.0-5.5	400-440	8.0-10	640-800	8.8-9.5	70-76	-0.12	120
BNP-10	6.8-7.2	680-720	5.3-5.9	420-470	8.0-10	640-800	9.5-10.5	76-84	-0.11	120
BNP-11	7.0-7.4	700-740	5.6-6.0	445-480	8.5-10	680-800	10.0-11.0	80-88	-0.11	120
BNP-11L	7.0-7.4	700-740	5.0-5.5	400-440	6.5-8	520-640	9.8-10.5	78-84	-0.11	110
BNP-12L	7.4-8.0	740-800	5.3-5.7	420-455	6.5-7.5	520-600	10.5-11.5	84-92	-0.08	110
Injection Molding NdFeB										
BNI-3	2.0-4.0	200-400	1.5-3.0	120-240	6.0-8.0	480-640	1..0-3.0	8.0-10	-0.15	100
BNI-4	4.0-4.6	400-460	3.1-4.2	250-335	7.2-9.2	575-735	3.5-4.5	28-36	-0.13	110
BNI-5	4.5-5.1	450-510	3.5-4.5	280-360	8.0-10	640-800	4.6-5.5	37-44	-0.13	120
BNI-6	5.1-5.6	510-560	3.7-4.7	295-375	8.0-10	640-800	5.5-6.5	44-52	-0.11	120
BNI-6H	4.8-5.6	480-560	4.2-5.0	335-400	13-17	1035-1355	5.0-6.5	40-52	-0.15	130
BNI-7	5.4-6.4	540-640	4.0-5.0	320-400	8.0-10	640-800	6.5-7.5	51-59	-0.11	120
BNI-5SR	4.5-5.0	450-500	3.8-4.5	300-360	11-14.0	875-1115	4.5-5.5	36-44	-0.13	150

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.

Samarium Cobalt Magnets

Material:

Made of Sm, Co, Fe and other rare-earth elements

Features:

Very fragile; good magnetic properties with a maximum energy product of 18 to 30 MGOE, a low temperature coefficient and high maximum temperature of use up to 300 C ; remarkable resistance against corrosion and oxidation that makes coating unnecessary; precise dimension control can be achieved in process and usually products do not require further machining.

Applications:

Motors, meters and instruments, transducers, radar, aeronautic and space industries, etc.

Magnetic Characteristics of SmCo Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coefficient		Operating Temp.
	B_r		H_{cB}		H_{cJ}		$(BH)_{max}$		TK(Br)	TK(Hcj)	T_w max
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m³	%/K	%/K	C
Sintered SMCO1:5											
YX-18	8.5-9.0	8500-9000	7.8-8.2	620-648	15-19	1194-1513	16-18	127-143	-0.05	-0.25	250
YX-20	9.2-9.6	9200-9600	8.2-9.0	653-717	15-19	1194-1513	19-21	150-167	-0.05	-0.25	250
YX-24	9.6-10.2	9600-10000	9.2-9.7	730-770	15-19	1194-1513	22-24	175-190	-0.05	-0.25	250
Sintered SMCO2:17											
YXG-24	9.5-10.2	9500-10200	8.0-9.2	637-732	18-25	1433-1990	22-24	175-190	-0.03	-0.23	350
YXG-26	10.2-10.5	10200-10500	9.4-10.0	748-796	18-25	1433-1990	24-26	195-215	-0.03	-0.2	350
YXG-28	10.5-10.8	10500-10800	9.5-10.0	756-796	18-25	1433-1831	26-28	205-220	-0.03	-0.2	350
YXG-28B	10.2-11.0	10200-11000	5.2-5.6	420	5.5-6.5	440-520	26-28	205-220	-0.03	-0.2	350
YXG-30	10.8-11.0	10800-11000	9.8-10.5	780	18-25	955-1195	28-30	220-240	-0.03	-0.2	350
YXG-30B	10.8-11.5	10800-11500	5.2-5.6	420	5.5-6.5	440-520	28-30	220-240	-0.03	-0.2	350
Bonded SMCO1:5											
YB-6	4	400	3.5	280	10	800	3.8-6.3	30-50	-0.05	-0.25	120
YB-10	5	500	4	320	10	800	6.3-8.2	50-65	-0.05	-0.25	120
Bonded SMCO2:17											
YBG-10	6	600	4.5	360	10	800	8.2-10	65-80	-0.03	-0.2	120
YBG-12	7	700	5	400	10	800	10-12	80-95	-0.03	-0.2	120
PLASTIC BONDED SMCO											
BSMCO-3	3.0-4.0	300-400	2.5-3.5	199-279	9.0-15.0	716-1194	2.5-3.5	20-28	-0.04	-0.2	120
BSMCO-5	3.5-5.5	350-550	3.1-4.5	247-358	9.0-15.0	716-1194	4.0-6.5	32-52	-0.04	-0.2	120
BSMCO-8	5.5-6.8	550-680	4.2-5.8	334-462	9.0-15.0	716-1194	6.0-8.0	48-64	-0.04	-0.2	120

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.

Ferrite Magnets

Material:

The cheapest magnetic material, main contents including ferric oxide , barium and strontium.

Features:

Hard and brittle, high magnetic flux density and coercive force, remarkable resistance against corrosion that makes coating unnecessary.

Applications:

Motors, loudspeakers, magnetrons, measuring devices, toys, arts and crafts etc.

Magnetic Characteristics of Sintered Ferrite Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coefficient		Operating Temp.	MMPA
	B_r		H_{cB}		H_{cJ}		$(BH)_{max}$		TK(Br) %/K	TK(Hcj) %/K	T_w max C	
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m³				
Y10T	2.00-2.18	200-218	1.57-1.82	125-145	2.64-3.14	210-250	0.8-1.0	6.5-8.0	-0.2	0.3	250	C1
Y25	3.60-3.70	360-370	1.70-1.88	135-150	1.76-2.14	140-170	2.8-3.2	22.5-25.3	-0.2	0.3	250	C5
Y30	3.80-3.90	380-390	2.40-2.64	191-210	2.50-2.51	199-220	3.4-3.7	27.0-30.0	-0.2	0.3	250	
Y33	4.00-4.10	400-410	2.20-2.45	175-195	2.26-2.51	180-200	3.8-4.0	30.0-31.5	-0.2	0.3	250	
Y35	4.10-4.20	410-420	2.77-2.95	220-235	2.83-3.01	225-240	4.0-4.2	31.5-33.0	-0.2	0.3	250	
Y30BH	3.80-3.90	380-390	2.80-2.95	223-235	2.90-3.08	231-245	3.4-3.7	27.0-30.0	-0.2	0.3	250	C8
Y33BH	4.00-4.10	400-410	3.62-3.77	288-300	3.51-3.60	280-287	3.8-4.0	30.4-31.5	-0.2	0.3	250	

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.

Rubber Magnets

Material:

Made of ferrite powder, synthetic rubber, plastic and other materials.

Features:

Good flexibility and precise dimension
Production Method: extruding, calendaring, injecting and molding

Shapes and Sizes:

Rolls, sheets, strips, blocks, rings, with max. width 900mm, thickness from 0.20mm-10mm, length can be as long as what customers require, steady pole

Surface Treatment:

Laminated with pvc sheet of different colors, self-adhesive tape, coated with UV

Color Imprinted & Die-Cut:

Laminated with pvc sheet, color imprinted with any designs and logos , die cut into any shape

Applications:

Promotion gifts, advertising, magnetic button, door and window fixers, seal strips, magnetic stationery and micro-motors etc.

Magnetic Characteristics of Rubber Magnets

Grade	Remanence Flux Density		Coercive				Max. Energy Density		Temp. Coeffizient	Operating Temp.
	Br		Hcb		Hcj		(BH)max			Tw max
	kGs	mT	kOe	kA/m	kOe	kA/m	MGOe	kJ/m3	%/°C	°C
ISOTROPIC RUBBER MAGNET										
RMT-B5	1.7-1.9	170-190	1.2-1.45	95-115	1.88-2.40	150-190	0.57-0.80	4.6-6.5	-0.2	80
RMT-B6.5	1.85-2.0	185-200	1.13-1.38	90-110	1.57-1.88	125-150	0.74-0.93	6.0-7.0	-0.2	80
ANISOTROPIC RUBBER MAGNET										
RMA-10	2.2-2.4	220-240	1.76	2.07	2.5-2.95	200-235	1.1-1.3	9.0-10.5	-0.2	80
RMA-11	2.3-2.5	230-250	1.82-2.07	145-165	2.38-2.85	190-225	1.18-1.36	9.5-11.0	-0.2	80
RMA-13	2.5-2.7	250-270	2.2-2.4	175-190	2.5-2.9	200-230	1.42-1.80	11.5-14.5	-0.2	80
RMA-15	>2.7	>270	2.2-2.4	175-190	2.5-2.9	200-230	>1.8	>14.5	-0.2	80

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products' shapes and dimensions. It is recommended that the final Test date be fixed on actual products.