

AlNiCo

version June 2015

Cast AlNiCo

Grade	Remanence Br		Normal coercivity Hcb		Energy density (BH)max		Density	Reversible temp. coefficient		Curie temp.	Working temp.	Remark
	mT	Gs	KA/m	Oe	KJ/m3	MGOe	g/cm3	Near Br	Near Hcj	°C	°C	
LN9	680	6800	30	380	9	1	6,9	-0,03	-0,02	810	450	isotropic
LN10	600	6000	40	500	10	1	6,9	-0,03	-0,02	810	450	
LN12	720	7200	45	500	12	2	7,0	-0,03	-0,02	810	450	
LN13	700	7000	48	600	13	2	7,0	-0,03	-0,02	810	450	
LNGT18	580	5800	100	1250	18	2	7,3	-0,025	+0,02	860	550	
LN37	1200	12000	48	600	37	5	7,3	-0,02	+0,02	860	525	anisotropic
LNG40	1250	12500	48	600	40	5	7,3	-0,02	+0,02	860	525	
LNG44	1250	12500	52	650	44	6	7,3	-0,02	+0,02	860	525	
LNG52	1300	13000	56	700	52	7	7,3	-0,02	+0,02	860	525	
LNG60	1350	13500	59	740	60	8	7,3	-0,02	+0,02	860	525	
LNGT28	1000	10000	58	720	28	4	7,3	-0,025	+0,03	860	525	
LNGT36J	700	7000	140	1750	36	5	7,3	-0,025	+0,02	860	550	
LNGT38	800	8000	110	1380	38	5	7,3	-0,025	+0,02	860	550	
LNGT40	800	8000	110	1380	40	5	7,3	-0,025	+0,02	860	550	
LNG60	900	9000	110	1380	60	8	7,3	-0,025	+0,02	860	550	
LNGT72	1050	10500	112	1400	72	9	7,3	-0,025	+0,02	860	550	

Sintered AlNiCo

Grade	Remanence Br		Normal coercivity Hcb		Energy density (BH)max		Density	Reversible temp. coefficient		Curie temp.	Working temp.	Remark
	mT	Gs	KA/m	Oe	KJ/m3	MGOe	g/cm3	Near Br	Near Hcj	°C	°C	
FLN8	520	5200	43	540	40	500	8-10	1.0-1.25	6,8	-0,022	760	isotropic
FLNG12	700	7000	43	540	40	500	12-14	1.5-1.75	7,0	-0,014	810	
FLNGT14	570	5700	78	980	76	950	14-16	1.75-2.0	7,1	-0,020	850	
FLNGT18	560	5600	90	1130	88	1100	18-22	2.25-2.75	7,2	-0,020	850	
FLNG28	1050	10500	47	590	46	580	28-33	3.5-4.15	7,2	-0,016	850	anisotropic
FLNG34	1100	11000	51	640	50	630	34-38	4.3-4.8	7,2	-0,016	890	
FLNGT28	1000	10000	57	710	56	700	28-30	3.5-3.8	7,2	-0,020	850	
FLNGT31	780	7800	106	1130	104	1300	33-36	3.9-4.5	7,2	-0,020	850	
FLNG33J	650	6500	150	1880	136	1700	31-36	4.15-4.5	7,2	-0,020	850	
FLNGT38	800	8000	126	1580	123	1550	38-42	4.75-5.3	7,2	-0,020	850	
FLNGT42	880	8800	122	1530	120	1500	42-48	5.3-6.0	7,25	-0,020	850	

Physical properties at room temperature (20°C)

Temp.Coeff. of Br:	See above	Temp.Coeff. of iHc:	
Density:	7.4-7.6g/cm³	Electrical resistivity:	50-80 x 10-5Ω cm
Vickers Hardness:	45-50 Rockwell C	Flexural Strength:	
Tensile strength:		Coeff. Of Thermal Expansion:	
Specific heat:		Thermal Conductivity:	
Young's Modulus:		Rigidity:	
Poisson's Ratio:		Compressibility:	
Curie Temperature:	810-860°C		

The maximum operating temperature

see above

Important notice:

Dimensions and shape of the magnet, in combination with required manufacturing processes, may cause the magnetic and physical characteristics to vary from typical values. Therefore, all data presented in this document are for general reference only and should not be relied upon to represent standard characteristics, nor are they guaranteed upon use. Bakker Magnetics reserves the right to change information in this document, including magnet performance standards, specifications, and characteristics without notice.