

Cast AlNiCO

Manufactured by traditional foundry methods, Alnico magnets are produced from complex alloys of Aluminium, Nickel, Cobalt, Copper and Iron. Although newer generations of permanent magnet materials have higher energy levels, Alnico magnets still offer the best temperature stability of any available magnetic material, which together with its high magnetic flux density, ensures that Alnico remains the material of choice for many applications.

Cast Alnico magnets are cast in sand moulds and usually require finish grinding. Casting Alnico is the most typical manufacturing method and most cast Alnico is “orientated” and anisotropic. This means that the magnet can only be magnetized in one direction, but this improves the magnetic strength.

Grade	Br		HcJ		(BH)max		D g/cm ³	Equivalent MMPA Class	Temp coefficient		Tc °C	Tw °C
	mT	Gs	kA/m	Oe	kJ/m ³	MGOe			Br	HcJ		
*LN9	680	6800	30	380	9.0	1.13	6.9	Alnico 3	-0.03	-0.02	810	450
*LN10	600	6000	40	500	10.0	1.20	6.9		-0.03	-0.02	810	450
LNG11	720	7200	37	480	11.2	1.40	7.0	Alnico 1	-0.03	-0.02	810	450
*LNG12	720	7200	45	500	12.4	1.55	7.0	Alnico 2	-0.03	-0.02	810	450
LNG13	700	7000	48	600	12.8	1.60	7.0					
LNG16	800	8000	53	660	16.0	2.00	7.3	[Alnico 4]	-0.025	+0.02	850	550
LNG34	1180	11800	44	550	35	4.30	7.3	[Alnico 5C]	-0.02	+0.02	860	550
LNG37	1200	12000	48	600	37.0	4.65	7.3	Alnico 5	-0.02	+0.02	860	525
LNG40	1250	12500	48	600	40.0	5.00	7.3					
LNG44	1250	12500	52	650	44.0	5.50	7.3					
LNG52	1300	13000	56	700	52.0	6.50	7.3					
LNG60	1350	13500	59	740	60.0	7.5	7.3	Alnico 5DG				
LNG60	1350	13500	59	740	60.0	7.5	7.3	Alnico 5~7				
LNGT28	1000	10000	58	720	28.0	3.50	7.3	Alnico 6	-0.2	+0.03	860	525
LNGT36J	700	7000	140	1750	36.0	4.50	7.3	Alnico 8HC	-0.025	+0.02	860	550
*LNGT18	580	5800	100	1250	18.0	2.2	7.3	Alnico 8	-0.025	+0.02	860	550
LNGT32	800	8000	100	1250	32.0	4.0	7.3	Alnico 8	-0.025	+0.02	860	550
LNGT40	800	8000	110	1380	40.0	5.0	7.3					
LNGT60	900	9000	110	1380	60.0	7.50	7.3	Alnico 9	-0.025	+0.02	860	550
LNGT72	1050	10500	112	1400	72.0	9.00	7.3					

* = Isotropic, Others = Anisotropic