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Material information

AlNiCo											
Description		Remanence		Energy product		Coercivity		Coercivity		Working temp.*	Temp. coeff.
		Br (mT)		(BxH) max. (kJ/m^3)		Hcb (kA/m)		Hcj (kA/m)		Tmax.	to Br
Material (selection)	DIN / IEC 60404-8-1	typ.	min.	typ.	min.	typ.	min.	typ.	min.	°C	%/°C
AlNiCo isotropic*	20/11	580	550	22	20	131	119			550	-0.020
AlNiCo anisotropic*	38/5	1280	1230	40	38	47	41			500	-0.020
AlNiCo anisotropic*	39/16	740	700	43	39	175	163			550	-0.020
AlNiCo anisotropic*	41/12	900	850	45	41	125	120			550	-0.020
AlNiCo anisotropic*	53/5	1350	1280	59	53	59	56			550	-0.020
AlNiCo anisotropic	75/12	1080	1030	82	75	125	120			500	-0.020
AlNiCo isotropic**	8/4		520		8		40		43	500	-0.022
AlNiCo anisotropic**	28/5		1050		28		46		47	500	-0.016
AlNiCo anisotropic**	38/12		800		38		120		122	500	-0.011
AlNiCo anisotropic**	36/14		680		36		136		139	500	-0.011
* casted											
** sintered											

Useful information

AlNiCo magnets are metallic alloy magnets made of aluminum, nickel, cobalt, iron, copper, titanium and chromium.

They are produced by sand casting, chill casting, vacuum precision casting and sintering.

AlNiCo magnets are characterized by high remanences and small temperature coefficients and are therefore used where a constant magnetic field is required despite larger external temperature fluctuations. Compared to the new magnetic materials AlNiCo magnets have a low coercivity.

The high nickel content in the alloy results in a high resistance against most acids and against oxidation.

Process flow