



INDUSTRY APPLICATIONS & SPECIFICATIONS OF IRON CHROME COBALT

Iron Chrome Cobalt (FeCrCo)

Iron Chrome Cobalt is a metal alloy of cobalt and chromium developed more than a half century ago. Cobalt-chrome has a very high specific strength and is commonly used in gas turbines, dental implants, and orthopedic implants. This material is machinable and malleable and was originally designed as a replacement for CuNiFe. It can also be used as a replacement for AlNiCo because of its high remanence, low Hc, high temperature resistance and low temperature coefficient of Br.

FeCrCo comes in both isotropic and anisotropic form and is much easier to form and magnetize. Unlike alnico FeCrCo is ductile: it can be rolled, stamped and bent prior to the final heat treatment. It can be rolled down to very thin strips and does not require any corrosion coating.



Typical Magnetic Performance Range for Cast FeCrCo

Grade	Br		Hcb		Hcj		BHmax		Density	Remark
	kGs	mT	kA/m	Oe	kA/m	Oe	KJ/m ³	MGOe	g/cm ³	
FeCrCo10/3	8.2	820	27	340	29	360	10	1.25	7.6	Isotropic
FeCrCo12/4	8	800	40	500	42	530	12	1.5	7.6	
FeCrCo28/5	10	1000	45	570	46	580	28	3.5	7.6	Anisotropic
FeCrCo30/4	11.5	1150	40	500	41	510	30	3.8	7.6	
FeCrCo35/5	10.5	1050	50	630	51	640	35	4.4	7.6	
FeCrCo36/5	12	1200	52	660	54	680	36	4.5	7.8	
FeCrCo44/4	13	1300	44	560	45	570	44	5.5	7.7	
FeCrCo52/5	13.5	1350	48	600	49	620	52	6.5	7.7	



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