Alnico

Grade	Maximum Energy Product BH_{max}	Residual Induction B_r	Minimum Intrinsic Coercivity H_{ci}	Coercivity H_c	Maximum Operating Temp T_{mo}	Curie Temp T_c	Coefficient Induction [20-150 °C] α	Coefficient Coercivity [20-150 °C] β
	kJ/m^3	**mT**	**kA/m**	**kA/m**	**°C**	**°C**	**% / °C**	**% / °C**
Cast								
AC200	12.7	720	47.7	46.2	450	810	-0.03	-0.03
AC300	10.7	700	39.8	38.2	450	760	-0.02	-0.02
AC400	11.1	550	57.3	54.1	450	760	-0.02	-0.02
AC500	43.8	1270	50.9	50.9	525	860	-0.02	-0.02
AC570	59.7	1350	58.9	58.1	525	860	-0.02	-0.02
AC5DG	51.7	1330	53.3	53.3	525	860	-0.02	-0.02
AC600	31.0	1050	63.7	62.1	525	860	-0.02	-0.02
AC800	43.8	850	135.3	128.9	550	860	-0.03	-0.03
AC8HC	39.8	720	172.7	159.2	550	860	-0.03	-0.03
AC900	79.6	1060	119.4	117.8	550	860	-0.03	-0.03
Sintered								
AS200	11.9	700	45.4	44.6	450	810	-0.03	-0.03
AS500	31.0	1080	49.3	49.3	525	860	-0.02	-0.02
AS600	23.9	970	62.1	61.3	525	860	-0.02	-0.02
AS800	35.8	800	127.3	121.0	550	860	-0.03	-0.03
AS8HC	35.8	670	159.2	146.4	550	860	-0.03	-0.03

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Typical Physical Properties – Cast	
Curie Temperature	760 – 860 °C
Coefficient of Thermal Expansion	+11.0 – +13.0 x 10^{-6} °C^{-1}
Electrical Resistivity	45 – 75 µΩ·cm
Density	6.9 – 7.3 g·cm^{-3}
Rockwell C Hardness	45 – 55 H_{RC}
Tensile Strength	0.02 – 0.15 kN·mm^{-2}
Transverse Modulus of Rupture	0.05 – 0.30 kN·mm^{-2}
Typical Physical Properties – Sintered	
Curie Temperature	810 – 860 °C
Coefficient of Thermal Expansion	+11.0 – +12.4 x 10^{-6} °C^{-1}
Electrical Resistivity	50 – 70 µΩ·cm
Density	6.8 – 7.0 g·cm^{-3}
Rockwell C Hardness	45 H_{RC}
Tensile Strength	0.35 – 0.45 kN·mm^{-2}
Transverse Modulus of Rupture	0.35 – 0.76 kN·mm^{-2}

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