



## Neodymium Iron Boron

Parameter	Symbol	Unit	N25EH	N28EH	N30H	N30SH	N30UH	N30EH	N35	N35H
Remanent Flux Density (minimum)	$B_r$	mT G	1020 10200	1050 10500	1080 10800	1080 10800	1080 10800	1080 10800	1180 11800	1230 12300
Coercivity (minimum)	$bH_c$	kA/m kOe	756 9.5	780 9.8	835 10.5	835 10.5	835 10.5	835 10.5	860 10.8	860 10.8
Intrinsic Coercivity (minimum)	$jH_c$	kA/m kOe	2387 30.0	2387 30.0	1353 16.8	1592 20.0	1989 25.0	2387 30.0	955 12.0	1353 17.0
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$ MGO	199 25	223 28	239 30	239 30	239 30	239 30	279 35	279 35
Curie Temperature (minimum)	$T_c$	$^{\circ}\text{C}$	330	330	330	330	330	330	310	330
Working Temperature (maximum)	$T_w$	$^{\circ}\text{C}$	200	200	120	150	180	200	80	120
Temperature Coefficient (typical)	$\alpha (B_r)$	$\% / ^{\circ}\text{C}$	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12

Parameter	Symbol	Unit	N35	N40	N40H	N42H	N42SH	N45	N45H	N48
Remanent Flux Density (minimum)	$B_r$	mT G	1180 11800	1270 12700	1270 12700	1300 13000	1300 13000	1340 13400	1340 13400	1380 13800
Coercivity (minimum)	$bH_c$	kA/m kOe	860 10.8	875 11.0	875 11.0	955 12.0	955 12.0	875 11.0	995 12.5	875 11.0
Intrinsic Coercivity (minimum)	$jH_c$	kA/m kOe	955 12.0	955 12.0	1353 17.0	1353 17.0	1592 20.0	955 12.0	1353 17.0	955 12.0
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$ MGO	279 35	318 40	318 40	334 42	334 42	358 45	358 45	382 48
Curie Temperature (minimum)	$T_c$	$^{\circ}\text{C}$	310	310	330	330	330	310	330	310
Working Temperature (maximum)	$T_w$	$^{\circ}\text{C}$	80	80	120	120	150	80	120	80
Temperature Coefficient (typical)	$\alpha (B_r)$	$\% / ^{\circ}\text{C}$	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12

Note: Additional Neodymium Iron Boron grades, including bonded versions, are available, contact our applications engineering department for further details.



## Samarium Cobalt

Parameter	Symbol	Unit	S18	S22	S24	S26	S26M	S26H	S28	S30
Remanent Flux Density (minimum)	$B_r$	mT	840	930	980	1030	1030	1030	1070	1100
		G	8400	9300	9800	10300	10300	10300	10700	11000
Coercivity (minimum)	$bH_c$	kA/m	605	637	676	716	716	716	756	772
		kOe	7.6	8.0	8.5	9.0	9.0	9.0	9.5	9.7
Intrinsic Coercivity (minimum)	$jH_c$	kA/m	1432	1432	1432	1194	1592	1989	1194	1194
		kOe	18.0	18.0	18.0	15.0	20.0	25.0	15.0	15.0
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$	143	175	191	207	207	207	223	239
		MGO	18	22	24	26	26	26	28	30
Curie Temperature (minimum)	$T_c$	$^{\circ}\text{C}$	750	750	800	800	800	800	800	800
Working Temperature (maximum)	$T_w$	$^{\circ}\text{C}$	250	280	280	150	300	330	250	250
Temperature Coefficient (typical)	$\alpha (B_r)$	$\% / ^{\circ}\text{C}$	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04

## Alnico

Parameter	Symbol	Unit	A2	A3	A5	A5-7	A6	A8	A8B	A9
Remanent Flux Density (minimum)	$B_r$	mT	700	600	1050	1350	1000	800	850	1050
		G	7000	6000	10500	13500	10000	8000	8500	10500
Coercivity (minimum)	$bH_c$	kA/m	44	38	47	59	56	123	124	112
		kOe	0.6	0.5	0.6	0.7	0.7	1.5	1.6	1.4
Intrinsic Coercivity (minimum)	$jH_c$	kA/m	45	40	48	59	57	128	124	112
		kOe	0.6	0.5	0.6	0.7	0.7	1.6	1.6	1.4
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$	12	10	31	60	24	32	44	72
		MGO	1.5	1.3	3.9	7.5	3.0	4.0	5.5	9.0
Curie Temperature (minimum)	$T_c$	$^{\circ}\text{C}$	810	810	850	860	860	850	860	860
Working Temperature (maximum)	$T_w$	$^{\circ}\text{C}$	450	450	450	525	450	450	550	550
Temperature Coefficient (typical)	$\alpha (B_r)$	$\% / ^{\circ}\text{C}$	-0.02	-0.03	-0.02	-0.03	-0.02	-0.02	-0.03	-0.03

Note: Additional Samarium Cobalt grades, including bonded versions, are also available. The properties of our Alnico grades will vary slightly depending on the formation process, cast or sintered. Please contact our applications engineer department for further details.

