



## Neodymium Iron Boron

Parameter	Symbol	Unit	N25EH	N28EH	N30H	N30SH	N30UH	N30EH	N35	N35H
Remanent Flux Density (minimum)	$B_r$	mT	1020	1050	1080	1080	1080	1080	1180	1230
		G	10200	10500	10800	10800	10800	10800	11800	12300
Coercivity (minimum)	$bH_c$	kA/m	756	780	835	835	835	835	860	860
		kOe	9.5	9.8	10.5	10.5	10.5	10.5	10.8	10.8
Intrinsic Coercivity (minimum)	$jH_c$	kA/m	2387	2387	1353	1592	1989	2387	955	1353
		kOe	30.0	30.0	16.8	20.0	25.0	30.0	12.0	17.0
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$	199	223	239	239	239	239	279	279
		MGO	25	28	30	30	30	30	35	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	1180	1270	1270	1300	1300	1340	1340	1380
		G	11800	12700	12700	13000	13000	13400	13400	13800
Coercivity (minimum)	$bH_c$	kA/m	860	875	875	955	955	875	995	875
		kOe	10.8	11.0	11.0	12.0	12.0	11.0	12.5	11.0
Intrinsic Coercivity (minimum)	$jH_c$	kA/m	955	955	1353	1353	1592	955	1353	955
		kOe	12.0	12.0	17.0	17.0	20.0	12.0	17.0	12.0
Maximum Energy Product (minimum)	$BH_{max}$	$\text{kJ/m}^3$	279	318	318	334	334	358	358	382
		MGO	35	40	40	42	42	45	45	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.

## Hard Ferrite (Ceramic)

Parameter	Symbol	Unit	C1	C3	C5	C8			FLEX6	FLEX11
Remanent Flux Density (minimum)	$B_r$	mT	220	350	400	370			163	225
			2200	3500	4000	3700			1630	2250
Coercivity (minimum)	$bH_c$	kA/m kOe	136	155	160	240			110	159
			1.7	1.9	2.0	3.0			1.4	2.0
Intrinsic Coercivity (minimum)	$jH_c$	kA/m kOe	220	160	185	260			240	222
			2.8	2.0	2.3	3.3			3.0	2.8
Maximum Energy Product (minimum)	$BH_{max}$	kJ/m <sup>3</sup> MGO	8	24	28	28			4.5	9.5
			1.0	3.0	3.5	3.5			0.6	1.2
Curie Temperature (minimum)	$T_c$	°C	450	450	450	450			450	450
Working Temperature (maximum)	$T_w$	°C	250	250	250	250			75	75
Temperature Coefficient (typical)	$\alpha (B_r)$	% / °C	-0.19	-0.19	-0.19	-0.19			-0.19	-0.19

## Flexible Magnets

In either strip, roll or sheet form, flexible ferrite magnetic material from MMG has become the choice for printing industry for promotional materials, vehicle signage and toys.

Flexible ferrite can be supplied with and without a PVC or adhesive backing. The PVC backing can be printed on directly thereby eliminating the need for laminating a printable material on the magnet prior to printing. Both our FLEX6 and FLEX11 grades are normally magnetised on one face for maximum holding power, but can be supplied axially magnetised to special order.

### Standard Product Size Range and Backing Options:

Thickness:	0.4 mm to 3.0 mm 0.015 in to 0.120 in
Width:	12.5 mm to 610.0 mm 0.5 in to 24.0 in
Length:	80 mm to 3000 m 3 in to 1000 ft
Backing:	Plain, Adhesive PVC Steel, Zinc

Custom die cutting and PVC colours other than white are also available upon request.

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