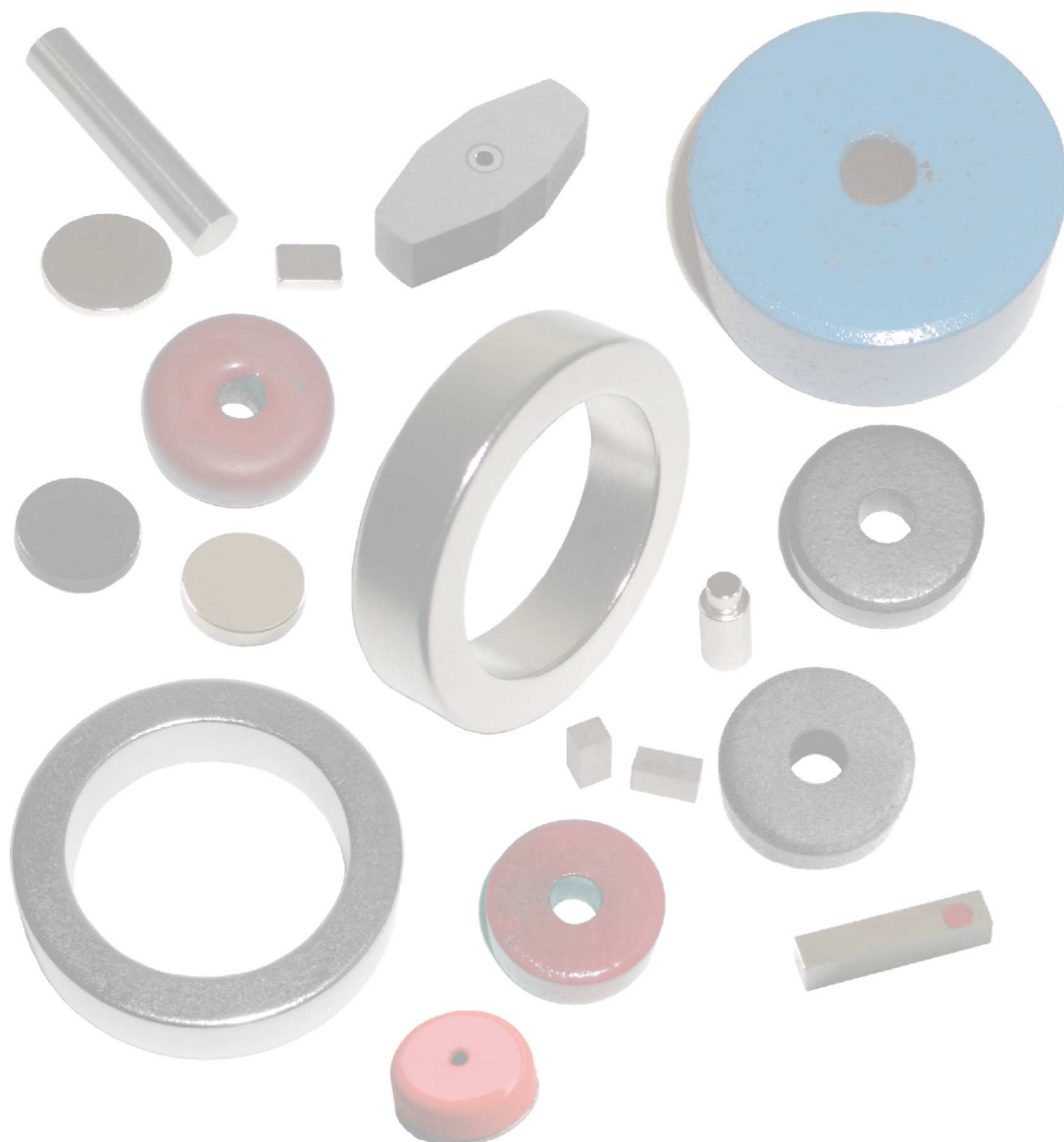


Permanent Magnets



Stratton Products Ltd. is a UK based company, specialising in the distribution of Hard and Soft Magnetic Materials and Components, i.e. Permanent Magnets, Ferrite, Iron Powder Cores, Wound Cores including Bobbins, Clips etc.

Offering quality products, we work in partnership with highly experienced, ISO Certified Manufacturers in the Far East & Canada, providing standard and custom made products which are used in a variety of applications.

Priding ourselves on our customer service, competitive prices and attention to detail, our knowledgeable staff will help you meet your specific needs. We also provide a comprehensive technical support service

 **Stratton
Products Ltd.**



Typical Magnetic Performance for Sintered NdFeB Magnet

Grade	Br [mT] [Gs]	HcB [KA/m] [Oe]	HcJ [KA/m] [Oe]	(BH)max [KJ/m ³] [MGOe]	Curie Temp. [°C]	Temp Coe. [%/°C]	Working Temp. [°C]	US Std. MMPA Equivalent
N25EH	1020	760	2387	200	330	0.12	200	RE25/30
	10200	9600	30000	25				
N28UH	1050	780	1989	223	330	0.12	180	RE28/25
	10500	9800	25000	28				
N28EH	1050	780	2387	223	330	0.12	200	RE28/30
	10500	9800	30000	28				
N30H	1080	835	1353	240	330	0.12	120	RE30/17
	10800	10500	17000	30				
N30SH	1080	835	1592	240	330	0.12	150	RE30/20
	10800	10500	20000	30				
N30UH	1080	835	1989	240	330	0.12	180	RE30/25
	10800	10500	25000	30				
N30EH	1080	835	2387	240	330	0.12	200	RE30/30
	10800	10500	30000	30				
N33H	1140	835	1353	365	330	0.12	120	RE33/17
	11400	10500	17000	33				
N33SH	1140	835	1592	265	330	0.12	150	RE33/20
	11400	10500	20000	33				
N33UH	1140	835	1989	265	330	0.12	180	RE33/25
	11400	10500	25000	33				
N35	1180	860	955	280	310	0.12	80	RE35/12
	11800	10800	12000	35				
N35M	1180	860	1114	280	320	0.12	100	RE35/14
	11800	10800	14000	35				
N35H	1180	860	1353	280	330	0.12	120	RE35/17
	11800	10800	17000	35				
N35SH	1180	860	1592	280	330	0.12	150	RE35/20
	11800	10800	20000	35				
N38	1230	875	955	300	310	0.12	80	RE38/12
	12300	11000	12000	38				
N38M	1230	875	1114	300	320	0.12	100	RE38/14
	12300	11000	14000	38				
N38H	1230	875	1353	300	330	0.12	120	RE38/17
	12300	11000	17000	38				
N38SH	1230	875	1592	300	330	0.12	150	RE38/20
	12300	11000	20000	38				
N40	1270	875	955	318	310	0.12	80	RE40/12
	12700	11000	12000	40				
N40M	1270	875	1114	318	320	0.12	100	RE40/14
	12700	11000	14000	40				
N40H	1270	875	1353	318	330	0.12	120	RE40/17
	12700	11000	17000	40				
N40SH	1270	875	1592	318	330	0.12	150	RE40/20
	12700	11000	20000	40				
N42	1300	875	955	334	310	0.12	80	RE42/12
	13000	11000	12000	42				
N42M	1300	875	1114	334	320	0.12	100	RE42/14
	13000	11000	14000	42				
N42H	1300	860	1353	334	330	0.12	120	RE42/17
	13000	10800	17000	42				
N45	1330	860	955	358	310	0.12	80	RE45/12
	13300	10800	12000	45				
N45M	1330	860	1114	358	320	0.12	100	RE45/14
	13300	10800	14000	45				

NdFeB Other Physical Properties

Temp.Coeff.of Br:	-0.11%/°C	Flexural Strength:	25kg/mm[KJ/m ²]
Density:	7.5g/cm ³ [KJ/m ³]	Coef.of Thermal Expansion:	4×10 ⁻⁶ /°C
Vickers Hardness:	600Hv	Thermal Conductivity:	7.7kcal/m.h.°C
Tensile Strength:	8.0kg/m[KJ/m ²]	Rigidity:	0.64N/m[KJ/m ²]/n
Specific Heat:	0.12k Cal/(kg°C)	Compressibility:	9.8×10 ¹² m[KJ/m ²]/N
Young's Modulus:	1.6×10 ¹¹ N/m[KJ/m ²]	Tmp.Coeff.of iHc:	-0.60%/°C
Poisson's Ratio:	0.24		
Curie Temperature:	310-340°C		
Electrical Resistivity:	144		

Note: Additional Neodymium Iron Boron grades, including bonded versions, are available, contact our sales department.

Typical Magnetic Performance for Alnico Magnets

Grade	Br [mT] [Gs]	Hc [KA/m] [Oe]	(BH)max [KJ/m ³] [MGOe]	Curie Temp [°C]	Temp.Coe [%/°C]	US standard MMPA Equivalent	IEC standard IEC Equivalent
LN10	650	42	10.0	810	0.030	Alnico 3	Alnico 9/3
	6500	530	1.20				
LNG11	720	37	11.2	810	0.030	Alnico 1	Alnico 8/4
	7200	480	1.40				
LNG13	700	50	13.0	810	0.030	Alnico 2	Alnico 12/6
	7000	620	1.60				
LNGT18	580	90	18.0	810	0.025	Alnico 8	Alnico 17/9
	5800	1130					
LNG16	800	53	16.0	810	0.025	Alnico 4	/
	8000	660	2.00				
LNG34	1180	44	35.0	810	0.020	Alnico 5C	/
	11800	550	4.30				
LNG37	1180	48	37.0	810	0.020	Alnico 5C	Alnico 37/5
	11800	600	4.65				
LNG40	1220	48	40.0	810	0.020	Alnico 5	/
	12200	600	5.00				
LNG44	1220	52	44.0	810	0.020	Alnico 5	Alnico 44/5
	12200	650	5.50				
LNG52	1250	55	52.0	810	0.020	Alnico 5 DG	Alnico 52/6
	12500	690	6.50				
LNG60	1300	56	60.0	810	0.020	Alnico 5~7	/
	13000	700	7.50				
LNGT28	1050	56	28.0	810	0.020	Alnico 6	Alnico 26/6
	10500	700	3.50				
LNGT32	800	104	34.0	810	0.025	Alnico 8	/
	8000	1300	4.25				
LNGT38	820	110	38.0	810	0.025	Alnico 8	Alnico 38/11
	8200	1380	4.75				
LNGT44	880	120	44.0	810	0.025	Alnico 8	/
	8800	1500	5.50				
LNGT60	900	110	60.0	810	0.025	Alnico 8	Alnico 60/11
	9000	1380	7.50				
LNGT72	1050	112	72.0	810	0.025	Alnico 9	/
	10500	1410	9.00				
LNGT36J	700	140	36.0	810	0.025	Alnico 8 HC	Alnico 36/15
	7000	1750	4.50				

Typical Magnetic Performance For Samarium Cobalt (SmCo) Magnets

Grade	Br [mT] [Gs]	HcB [KA/m] [Oe]	HcJ [KA/m] [Oe]	(BH) max [KJ/m ³] [MGOe]	Curie Temp. [°C]	Temp. Coe. [%/°C]	Working Temp. [°C]	ALLOY Series
SmCo18	800	600	1430	144	750	0.04	250	1:5
	8000	8000	18000	18.0				
SmCo20	850	640	1590	160	750	0.04	250	1:5
	8500	8000	20000	20.0				
SmCo22	900	650	1430	176	750	0.04	250	1:5
	9000	82000	18000	22.0				
SmCo24	980	676	1430	192	800	0.04	300	2:17
	9800	8500	18000	24.0				
SmCo26L	1050	410	432	208	800	0.04	300	2:17
	10500	5150	5430	26.0				
SmCo26	1000	716	1194	208	800	0.04	300	2:17
	10000	9000	15000	26.0				
SmCo26M	1000	716	1590	208	800	0.04	300	2:17
	10000	9000	20000	26.0				
SmCo28	1030	760	1430	224	800	0.04	300	2:17
	10300	9500	18000	28.0				
SmCo28H	1030	760	1590	224	800	0.04	300	2:17
	10300	9500	20000	28.0				
SmCo30H	1100	480	560	240	800	0.04	300	2:17
	11000	6000	7000	30.0				

Typical Magnetic Performance for Bonded SmCo Magnets

Grade	Br [mT] [Gs]	HcB [KA/m] [Oe]	HcJ [KA/m] [Oe]	(BH) max [KJ/m ³] [MGOe]	Curie Temp. [°C]	Temp.Coe [%/°C]	Working Temp. [°C]	IEC standard IEC Equivalent
SB6A	400	278	800	32	720	0.1	120	1:5
	4000	3500	10000	4.0				
SB8A	500	318	800	48	720	0.1	120	1:5
	5000	4000	10000	6.0				
SB10B	600	358	800	64	720	0.1	120	2:17
	6000	4500	10000	8.0				
SB12B	700	318	400	80	720	0.1	120	2:17
	7000	4000	5000	10.0				
SB12HB	700	398	800	80	720	0.1	120	2:17
	7000	5000	10000	10.0				

Typical Magnetic Performance for Sintered Ferrite Magnets

Grade	Br [mT] [Gs]	HcB [KA/m] [Oe]	HcJ [KA/m] [Oe]	(BH) max [KJ/m ³] [MGOe]	Curie Temp. [°C]	Temp. Coe [%/°C]	IEC standard IEC Equivalent
Y10T	200	125	210	6.6	450	0.200	Ceramic 1
	2000	1600	2600	0.80			
Y20	360	135	140	20.0	450	0.200	/
	3600	1700	1760	2.50			
Y25	380	144	150	24.0	450	0.200	/
	3800	1800	1880	3.00			
Y30	390	200	188	27.6	450	0.200	Ceramic 5
	3900	2500	2350	3.40			
Y33	410	208	212	30.4	450	0.200	/
	4100	2600	2660	3.80			
Y35	415	240	244	31.8	450	0.200	/
	4150	3000	3050	4.00			
Y30BH	390	240	256	27.6	450	0.200	Ceramic 8
	3900	3000	3200	3.40			
Y33BH	400	240	244	30.4	450	0.200	Ceramic 8B
	4000	3000	3050	3.80			
Y25H	370	264	312	24.0	450	0.200	/
	3700	3300	3900	3.00			

**TYPICAL MAGNETIC PERFORMANCE
For Bonded Ferrite Magnets**

Grade	Br [mT] [Gs]	HcB [KA/m] [Oe]	HcJ [KA/m] [Oe]	(BH) max [KJ/m ³] [MGOe]	Curie Temp. [°C]	Temp. Coe [%/°C]	Working Temp. [°C]	IEC standard IEC Equivalent
FB11	63	50	165	1.0	450	0.190	250	HF 1/14P
	630	6400	2100	0.1				
FB31	135	85	175	3.2	450	0.190	250	HF 3/18P
	1350	1060	2200	0.4				
FB1A	240	175	240	11.0	450	0.190	250	HF 10/22P
	2400	2200	3000	1.4				
FB2A	290	190	226	16.0	450	0.190	300	HF 16/21P
	2900	2380	2840	2.0				

MICRO MAGNETS

We can supply micro magnets in Alnico, NdFeB, SmCo, Ceramic, CeCoCuFe or other materials within very tight tolerances, the shape can be made as ring, rod, disc, block etc.

We can supply micro NdFeB magnet with high quality Parylene Coating or Gold-Plated.

This will help customers resolve some problems with rust or welding.

We also supply the special permanent magnet FeCrCo.



material.

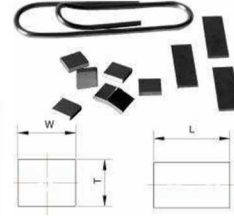
	Diameter [D] in mm
Size Range	0.8 - 5.0
Tolerances	±0.005 - 0.05

Super-hard

Micro Blocks

Material: Alnico, NdFeB, SmCo, Ceramic

	Length [L] in mm	Width [W] in mm	Thickness [T] in mm
Size Range	0.3 - 10.0	0.3 - 10.0	0.3 - 10.0
Tolerances	±0.005 - 0.025	±0.005 - 0.025	±0.005 - 0.025


Micro Rods


Material: NdFeB, Ceramic, SmCo or other super-hard material.

	Diameter [D] in mm
Size Range	0.8 - 5.0
Tolerances	±0.005 - 0.05

Micro Rings

Material: Alnico, NdFeB, SmCo, Ceramic

	Outer Diameter [D] in mm	Inner Diameter [d] in mm	Length [L] in mm
Size Range	0.3 - 3.0	0.2 - 2.5	0.2 - 6.5
Tolerances	±0.005 - 0.025	±0.005 - 0.025	±0.005 - 0.025


Micro Balls

Material: NdFeB, Ceramic, SmCo or other

FeCrCo Magnet

FeCrCo is one of machinable permanent magnetic alloy, whom has good plasticity, ductility and machinability.

It has the similar properties with Alnico5.

The alloy can be used at higher temperature and has good corrosion resistance.

It can be made as different shapes and sizes such as:

Item	Wire	Bar	Strip	Tube
Size Range	Ø 02.-7.0	Ø 8-60	0.05-4.0	Ø 0.5-30.0


Typical Magnetic Properties

Grade	Br		H·j		(BH)max		Density G/cm ³	Curie Temp [°C]	Working Temp [°C]
	mT	Gs	KA/m	Oe	KJ/m ³	MGOe			
FeCrCo 5	≥ 1200	≥ 12000	≥ 52	≥ 650	32-40	4.0-5.0	7.7	640	400
FeCrCo 2	≥ 900	≥ 9000	≥ 28	≥ 350	12-16	1.5-2.0	7.7	640	400