

Ferrite Magnets (Ceramic Magnets)

Ferrite magnets, also referred to as ceramic magnets, are permanent magnets made from a combination of iron oxide and barium or strontium carbonate.

These magnets can be produced in a variety of grades, shapes and sizes, including rings, blocks, rods, segments etc. They are often supplied uncoated due to the fact they are not as strong as other permanent magnets.

The main benefits of Ferrite magnets are:

- High Curie Temperature
- High resistance to demagnetization
- Most cost effective magnet
- High corrosion resistance

Typical Applications which can use Ferrite Magnets include:

- Compute Hard Drives
- Speakers
- Motors
- Generators
- Sensors



Physical property of hard ferrite magnets

Typical Physical Properties	
Curie Temperature (°C)	450
Maximum Operating Temperature (°C)	250
Hardness (Hv)	480-580
Density (g/cm ³)	4.8 - 4.9
Relative Recoil Permeability (μ _{rec})	1.05 - 1.20
Saturation Field Strength, kOe (kA/m)	10 (800)
Temperature Coefficient of Br (%/°C)	-0.2
Temperature Coefficient of iH _c (%/°C)	0.3
Tensile Strength (N/mm)	<100
Transverse Rupture Strength (N/mm)	300

Typical Magnetic Performance Range for Ferrite Magnets

Grade	Br		Hcb		Hcj		BHmax	
	kGs	mT	kOe	kA/m	kOe	kA/m	KJ/m3	MGOe
Y8T		200~235	1.57	125~160	2.61	210~280	6.5~9.5	0.8
Y22H	3.1	310~360	2.77	220~250	3.52	280~320	20.0~24.0	2.5
Y25	3.6	360~400	1.7	135~170	1.76	140~200	22.5~28.0	2.8
Y26H-1	3.6	360~390	2.51	220~250	2.83	225~255	23.0~28.0	2.9
Y26H-2	3.6	360~380	3.3	263~288	4	318~350	24.0~28.0	3
Y27H	3.5	370~400	2.83	225~240	2.95	235~260	25.0~29.0	3.1
Y28	3.7	370~400	2.2	175~210	2.26	180~220	26.0~30.0	3.3
Y28H-1	3.8	380~400	30.2	240~260	3.14	250~280	27.0~30.0	3.1
Y28H-2	3.6	360~380	3.4	271~295	≥4.8	382~405	26.0~30.0	3.3
Y30	3.7~4.0	370~400	2.20~2.64	175~210	2.26~2.77	180~220	26.0~30.0	3.3~3.8
Y30H-1	3.8	380~400	2.89	230~275	2.95	235~290	27.0~32.5	3.4
Y30H-2	3.95	395~415	3.46	275~300	3.9	310~335	27.0~32.0	3.4
Y32	4	400~420	2.01	160~190	2.07	165~195	30.0~33.5	3.8
Y32H-1	4	400~420	2.39	190~230	2.89	230~250	34.5~35.0	4
Y32H-2	4	400~440	2.81	224~240	2.89	230~250	31.0~34.0	3.9
Y33	4.1	410~430	2.76	220~250	2.83	225~255	31.5~35.0	4
Y33H	4.1	410~430	3.14	250~270	3.14	250~275	31.5~35.0	4
Y34	4.2	420~440	2.51	200~230	2.58	205~235	32.5~36.0	4.1
Y35	4.3	430~450	2.7	215~239	2.73	217~242	33.1~33.2	4.2

The materials listed above are China standard -SJ/T10410 2000 permanent ferrite magnet standard. We can also supply ferrite magnets in the following materials:

USA standard (materials begin with C)

Japan TDK standard (materials begin with FB)

International Electronics Committee, IEC404-8-1. (materials begin with HF)