

## Ferrite Magnet

### HARD FERRITE PERMANENT MAGNETS

Magnetic materials are fundamental functional materials of electronic industry. As important parts of magnetic materials, hard ferrite materials play a heavy role in electronic industry, electronic information industry, car industry, motorcycle industry etc. meanwhile, they are also widely used in medical treatment, mining and metallurgy, industrial automation, oil energy industry and civil industry.

Our main products include: hard ferrite arc or segment, ring magnets, rectangular magnets, ferrite power etc. Which have the following advantages: high coercive force, high electric resistance, long-time stability, and economical price. Meanwhile, we can manufacture new tools according to the customers' demand.



#### Mostly Used national standard - SJ285-77 permanent ferrite magnet standard

Grade	Value(min/typical in our factory)							
	Br		Hcb(BHC)		Hcj(IHC)		(BH)max	
	MT	KG	KA/m	Koe	KA/m	KOe	Kj/m <sup>3</sup>	MGOe
Y10T(=C1)	200/218	2.00/2.18	125/145	1.57/1.82	210/250	2.64/3.14	6.5/8.0	0.8/1.0
Y25	360/370	3.60/3.70	135/150	1.70/1.88	140/170	1.76/2.14	22.5/25.3	2.8/3.2
Y30(=C5)	380/385	3.80/3.85	191/210	2.40/2.64	199/220	2.50/2.51	26.0/28	3.4/3.7
Y30BH	380/390	3.80/3.90	223/235	2.80/2.95	231/245	2.90/3.08	27.0/30.0	3.4/3.7
Y33	410/420	4.10/4.20	220/235	2.77/2.95	225/240	2.83/3.01	31.5/33.0	4.0/4.2
Y35	400/410	4.00/4.10	175/195	2.20/2.45	180/200	2.26/2.51	30.0/32.0	3.8/4.0
C8(=C8A)	385/390	3.85/3.90	235/255	2.95/3.20	242/265	3.05/3.33	27.8/30.0	3.5/3.7
C10	400/410	4.00/4.10	288/300	3.62/3.77	280/287	3.51/3.60	30.4/31.9	3.8/4.0

#### Chinese standard -sj/T10410 2000 permanent ferrite magnet standard

Material	Br		HcB		HcJ		(BH)max	
	mT	KG	KA/m	Oe	KA/m	Oe	Kj/m <sup>3</sup>	MGOe
Y8T	200~235	≧2000	125~160	≧1570	210~280	≧2610	6.5~9.5	≧0.8
Y22H	310~360	≧3100	220~250	≧2770	280~320	≧3520	20.0~24.0	≧2.5
Y25	360~400	≧3600	135~170	≧1700	140~200	≧1760	22.5~28.0	≧2.8

ferrite magnets - hard permanent ferrite magnets

Y26H-1	360~390	≧3600	220~250	≧2512	225~255	≧2830	23.0~28.0	≧2.9
Y26H-2	360-380	≧3600	263-288	≧3300	318-350	≧4000	24.0-28.0	≧3.0
Y27H	370~400	≧3500	225-240	≧2830	235-260	≧2950	25.0~29.0	≧3.1
Y28	370-400	≧3700	175-210	≧2200	180-220	≧2260	26.0-30.0	≧3.3
Y28H-1	380-400	≧3800	240-260	≧3020	250-280	≧3140	27.0-30.0	≧3.1
Y28H-2	360-380	≧3600	271-295	≧3400	382-405	≧1800	26.0-30.0	≧3.3
Y30	370~400	3.7~4.0	175~210	2.20~2.64	180~220	2.26~2.77	26.0~30.0	3.3~3.8
Y30H-1	380~400	≧3800	230-275	≧2890	235-290	≧2950	27.0~32.5	≧3.4
Y30H-2	395-415	≧3950	275-300	≧3460	310-335	≧3900	27.0~32.0	≧3.4
Y32	400~420	≧4000	160~190	≧2010	165~195	≧2070	30.0~33.5	≧3.8
Y32H-1	400-420	≧4000	190-230	≧2390	230-250	≧2890	34.5-35.0	≧4.0
Y32H-2	400-440	≧4000	224-240	≧2810	230-250	≧2890	31.0-34.0	≧3.9
Y33	410~430	≧4100	220~250	≧2760	225~255	≧2830	31.5~35.0	≧4.0
Y33H	410-430	≧4100	250-270	≧3140	250-275	≧3140	31.5-35.0	≧4.0
Y34	420-440	≧4200	200-230	≧2510	205-235	≧2580	32.5-36.0	≧4.1
Y35	430-450	≧4300	215-239	≧2700	217-242	≧2730	33.1-33.2	≧4.2
Y36	440-450	≧4400	247-271	≧3100	250-374	≧4400	35.1-38.3	≧4.4
Y38	440-460	≧4400	285-305	≧3580	294-310	≧3690	36.6-40.6	≧4.6
Y40	450-460	≧4500	330-354	≧4150	340-360	≧4270	37.6-41.8	≧4.7



[Demagnetization Curves of Permanent Ferrite Magnet](#)

**USA standard - permanent ferrite magnet industry standard of USA**

Material	Br		HcB		HcJ		(BH)max	
	mT	KG	KA/m	KOe	KA/e	KOe	kJ/m <sup>3</sup>	MGOe
C1	230	2.3	148	1.86	258	3.5	8.36	1.05

## ferrite magnets - hard permanent ferrite magnets

C5	380	3.8	191	2.4	199	2.5	27	3.4
C7	340	3.4	258	3.23	318	4.00	21.9	2.75
C8(=C8A)	385	3.85	235	2.95	242	3.05	27.8	3.5
C8B	420	4.2	232	2.913	236	2.96	32.8	4.12
C9	380	3.8	280	3.516	320	4.01	26.4	3.32
C10	400	4.0	288	3.617	280	3.51	30.4	3.82
C11	430	4.3	200	2.512	204	2.56	34.4	4.32

## Japan TDK standard

Grade	Composition; j	Br		Hcb		Hcj		BH max	
		mT	kG	kA/m	kOe	kA/m	kOe	KJ/m <sup>3</sup>	MGOe
FB40	SrO6Fe2O3	410+/-10	4.1+/-10	234.8+/- 11.9	2.95+/- 0.15	238.7+/-15.9	3.0+/-0.2	31.4+/-1.6	3.95+/-0.2
FB3N	SrO6Fe2O3	395+/-15	3.95+/-15	234.8+/- 11.9	2.95+/- 0.15	238.7+/-15.9	3.0+/-0.2	28.7+/-2.4	3.6+/-0.3
FB3G	SrO6Fe2O3	375+/-15	3.75+/-15	254.6+/- 15.9	3.2+/-0.2	270.6+/-19.9	3.4+/-0.25	25.9+/-2.4	3.25+/-0.3
FB3X	SrO6Fe2O3	375+/-15	3.75+/-15	234.8+/- 11.9	2.95+/- 0.15	238.7+/-15.9	3.0+/-0.2	25.9+/-2.4	3.25+/-0.3
FB1A	SrO6Fe2O3	220+/-15	2.20+/-15	159.2+/- 15.9	2.0+/-0.2	258.6+/-19.9	3.25+/- 0.25	8.9+/-1.6	1.1+/-0.2
FB5H	SrO6Fe2O3	405+/-15	4.05+/-15	298.4+/- 11.9	3.75+/- 0.15	322.3+/-11.9	4.05+/- 0.15	31.1+/-1.6	3.9+/-0.2
FB4X	SrO6Fe2O3	420+/-10	4.20+/-10	234.8+/- 11.9	2.95+/- 0.15	238.7+/-15.9	3.0+/-0.2	33.4+/-1.6	4.2+/-0.2
FB4B	SrO6Fe2O3	400+/-10	4.00+/-10	254.6+/- 11.9	3.2+/-0.2	262.6+/-19.9	3.3+/-0.25	30.3+/-1.6	3.8+/-0.2
FB4A	SrO/BaO6Fe2O3	410+/-10	4.10+/-10	175.1+/- 15.9	2.2+/-0.2	176.7+/-15.9	2.22+/-0.2	31.8+/-1.6	4.0+/-0.2
FBGN	SrO6Fe2O3	440+/-10	4.40+/-10	258.6+/- 11.9	3.25+/- 0.15	262.6+/-11.9	3.3+/-0.15	36.7+/-1.6	4.6+/-0.2

ferrite magnets - hard permanent ferrite magnets

FB6B	SrO6Fe2O3	420+/-10	4.20+/-10	302.4+/-11.9	3.8+/-0.15	318.3+/-11.9	4.0+/-0.15	33.4+/-1.6	4.2+/-0.2
FB6H	SrO6Fe2O3	400+/-10	4.00+/-10	302.4+/-11.9	3.8+/-0.15	358.1+/-11.9	4.5+/-0.15	30.3+/-1.6	3.8+/-0.2
FB6E	SrO6Fe2O3	380+/-10	3.80+/-10	290.5+/-11.9	3.65+/-0.15	393.9+/-11.9	4.95+/-0.15	27.5+/-1.6	3.45+/-0.2
FB5N	SrO6Fe2O3	440+/-10	4.40+/-10	256.8+/-11.9	2.85+/-0.15	2259.2+/-11.9	2.88+/-0.15	36.7+/-1.6	4.6+/-0.2
FB5B	SrO6Fe2O3	420+/-10	4.20+/-10	262.6+/-11.9	3.3+/-0.15	266.6+/-11.9	3.35+/-0.15	33.4+/-1.6	4.2+/-0.2

The standard from International Electronics Committee(IEC404-8-1)

Grade	Allowed Value (min/typical)							
	Br		Hcb(BHC)		Hcj(IHC)		(BH)max	
	MT	KG	KA/m	KOe	KA/m	KOe	Kj/m <sup>3</sup>	MGOe
HF8/22	200/220	2.00/2.20	125/140	1.57/1.76	220/230	2.76/2.89	6.5/6.8	0.8/1.1
HF20/19	320/333	3.20/3.33	170/190	2.14/2.39	190/200	2.39/2.51	20.0/21.0	2.5/2.7
HF20/28	310/325	3.10/3.25	220/230	2.76/2.89	280/290	3.52/3.64	20.0/21.0	2.5/2.7
HF22/30	350/365	3.50/3.65	255/265	3.20/3.33	290/300	3.64/3.77	22.0/23.5	2.8/3.0
HF24/16	350/365	3.50/3.65	155/175	1.95/2.20	160/180	2.01/2.26	24.0/25.5	3.0/3.2
HF24/23	350/365	3.50/3.65	220/230	2.76/2.89	230/240	2.89/3.01	24.0/25.5	3.0/3.2
HF24/35	360/370	3.60/3.70	260/270	3.27/3.39	350/360	4.40/4.52	24.0/25.5	3.0/3.2
HF26/16	370/380	3.70/3.80	155/175	1.95/2.20	160/180	2.01/2.26	26.0/27.0	3.2/3.4
HF26/18	370/380	3.70/3.80	175/190	2.20/2.39	180/190	2.26/2.39	26.0/27.0	3.3/3.4
HF26/24	370/380	3.70/3.80	230/240	2.89/3.01	240/250	3.01/3.14	26.0/27.0	3.3/3.4
HF26/26	370/380	3.70/3.80	230/240	2.89/3.01	260/270	3.27/3.39	26.0/27.0	3.3/3.4
HF26/30	385/395	3.85/3.95	260/270	3.27/3.39	300/310	3.77/3.89	26.0/27.0	3.3/3.4
HF28/26	385/395	3.85/3.95	250/265	3.14/3.33	260/275	3.27/3.45	28.0/30.0	3.5/3.8
HF28/28	385/395	3.85/3.95	260/270	3.27/3.39	280/290	3.50/3.60	28.0/30.0	3.5/3.8

HF30/26	395/405	3.95/4.05	250/260	3.14/3.33	260/270	3.27/3.39	30.0/31.5	3.8/3.9
HF32/17	410/420	4.10/4.20	160/180	2.01/2.26	165/175	2.07/2.20	32.0/33.0	4.0/4.1
HF32/22	410/420	4.10/4.20	215/225	2.70/2.83	220/230	2.76/2.89	32.0/33.0	4.0/4.1
HF32/25	410/420	4.10/4.20	240/250	3.01/3.14	250/260	3.14/3.27	32.0/33.0	4.0/4.1

### Physical property of hard ferrite magnets

Parameters	Mark	Unit	Value
Recoil Permeability	Urce	-	1.05-1.3
Curie temperature	Tc	°C	460
The temperature of Br	$\alpha$ Br	°C <sup>-1</sup>	-0.2%
The temperature of Hcj	$\alpha$ Hcj	°C <sup>-1</sup>	0.2-0.5%
Density	D	g/cm <sup>3</sup>	4.5-5.1
Resistivity	P	$\Omega \cdot \text{cm}$	$\cong 10^4$
The coefficient of linear expansion	$\alpha$ R	°C <sup>-1</sup>	7-15x10 <sup>-6</sup>
Hardness	HV	-	480-580

- 1 [Inspection standard for permanent magnet](#)
- 1 [Purchasing Guide](#)
- 1 [Permanent magnet supply direction](#)
- 1 [Surface protection and surface coating for the permanent magnet](#)
- 1 [Quality warranty](#)
- 1 [Safety principle for manual operation of permanent magnet](#)

[Home](#) [AlNiCo magnet](#) [SmCo magnet](#) [NdFeB magnet](#)

ferrite magnets - hard permanent ferrite magnets

[AlNiCo magnets](#) / [AlNiCo Bonded magnets](#) / [Sintered AlNiCo](#) || [SmCo magnet](#) / [Bonded SmCo magnet](#)

[Ferrite cores](#) / [NiZn core](#) / [NiCuZn core](#) / [Iron Powder core](#) || [magnetizer](#) / [Tesla Meter](#)

[Magnetic Powder](#) / [Ferrite powder](#) / [NdFeB powder](#) / [AlNiCo powder](#)



Micro-Magnet Technology Co.,Ltd.

[Home](#)

Copy Right 2001 YUXIANG Magnetic Materials Ind. Co.,Ltd. All Rights Reserved

Add :F/16, Jinyuan plaza, # 57 South Hubin.Road, Xiamen, CHINA 361004

Tel : (86)592 2295387 (86)592 2217138 Fax: (86)592 2207122

Email : [yingli@magnets.com.cn](mailto:yingli@magnets.com.cn)