

Ceramic (Hard Ferrite)

Ceramic Magnets (Hard Ferrite) are composed of barium or strontium, which were developed in the early 1960's as an alternative to the more expensive metallic magnets.

This class of magnet is very hard, brittle and possesses lower energy characteristics compared to other magnetic materials. However, it is very popular and widely used because of its excellent resistance to demagnetisation, corrosion, and the advantageous pricing.

Ferrite magnets are manufactured by pressing, sintering, or injection moulding. These magnets can be both anisotropic and isotropic. Anisotropic grades are oriented during the manufacturing process and must be magnetised in the direction of orientation. Isotropic grades are not oriented and can be magnetised in any direction.



Applications of Ceramic Magnets

- Speaker Magnets
- DC brushless motors
- Magnetic Resonance Imaging (MRI)
- Magnets used on lawnmowers and outboard motors
- DC permanent magnet motors (used in cars)
- Separators (separate ferrous material from non-ferrous)
- Used in magnetic assemblies for lifting, holding, retrieving and separating

Standard - SJ285-77 permanent ferrite magnet standard

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

