

Polymer Bonded SmCo magnet

Some of the Advantages of Polymer Bonded SmCo Magnets

- Higher maximum operating temperature
- Environmentally more stable
- Smaller temperature coefficient

Bonded magnet is made through "compression molding" or "injection molding" of the mixture of quick-quenched NdFeB magnetic powder and bonding agent. Bonded SmCo magnet is made by grinding sintered SmCo magnets. SmCo powder is mixed with resin and molded like Nd-Fe-B plastic bonded magnet and has been produced without secondary processing. For bonded SmCo magnet has high resistance to corrosion, it is free of coating. Due to its high accuracy in size, the bonded SmCo magnet may be formed into magnetic components of relatively complicated shapes. Produced with high efficiency, stability and repeatability, bonded SmCo magnet and other part may form together in one step; Free choice of magnetizing direction-especially for multi-polar applications; High dimensional accuracy-large quantity applications with minimum post-press machining; Thin-wall ring and complex shape magnets; High resistance to corrosion.



The Polymer bonded SmCo magnet has the following advantages:

1. It is an isotropic magnet with high magnetic properties.
2. It can be magnetized through any direction, suitable to make radially-magnetized or axially-magnetized multipolar magnet.
3. It has high-precision dimension.
4. It has many types of shapes and specifications.
5. It is not easy to be eroded, due to advanced technology of surface.

Magnetic properties of Polymer bonded SmCo magnets by compressing moulding:

Grade	Br	HcB	HcJ	BHmax	Tc	Tw.	αBr	ALLOY Series
	[mT] [Gs]	KA/m] [Oe]	[KA/m] [Oe]	[kJ/m ³] [MGOe]	[°C]	[°C]	[%/°C]	
SB6A	400 4000	278 3500	800 10000	32 4.0	720	120	-0.08	1:5
SB8A	500 5000	318 4000	800 10000	48 6.0	720	120	-0.08	
SB10B	600 6000	358 4500	800 10000	64 8.0	720	120	-0.08	2:17
SB12B	700 7000	318 4000	400 5000	80 10.0	720	120	-0.08	
SB12HB	700	398 5000	800 10000	80 10.0	720	120	-0.08	