



## Injection Bonded NdFeB Magnet

Yuxiang always supply the clients with top grade Injection Bonded NdFeB Magnet (Injection Plastic NdFeB magnets), which is a new type of compounded permanent magnetic material. Injection Bonded NdFeB Magnet is a kind of new-generation composite material made from permanent magnetic powder and plastic, has outstanding magnetic properties and plastic properties and features high size precision and exceptional shock resistance. It mixes the powder of permanent magnetic material (ferrite, NdFeB, Sm<sub>2</sub>Co<sub>17</sub> and AlNiCo) and hot plastic powder, which will be fitting and granulated by a special magnet extrusion granulation machine, and further shaped by a special magnetic field injection moulding machine. The injection moulding process allows for moulding directly on, in or over other components thereby reducing secondary processing costs. Injection bonded magnets offer a combination of high magnetic strength and excellent physical properties. They offer large scale manufacture of shaped parts of close dimensional and magnetic tolerances. As smaller more efficient designs are therefore available then with increased design freedom lower losses of magnetism can be achieved. Typical tolerances will depend largely on the part configuration and the type of tooling selected. The material for any specification of Injection bonded magnets is chosen based on many factors for example temperature, strength, water absorption, solvent resistance, complexity of shape and compatibility with the magnet power.



### Characteristics & Application of Injection Bonded NdFeB Magnet:

**Characteristics:** good at consistency, recombination compaction, flexible in magnetized orientation and with high mechanical strength. Having high dimensional precision and impact-resistance. Capable of forming products with inlay; Versatile shapes and specification; Impact-resistant; advanced surface treatment technology, effectively protect; Integrated forming

**Applications:** Copier and laser printer rolls; Permanent motor magnets; Magnetic rings for aerodynamic component; Color Monitor/TV purity convergence magnet; office equipment, instrument, meter, and beeper. rotors & other components. Magnet stators for fractional horsepower D.C. motors. Multi-pole magnetic motors for brushless D.C. and stepper motors. Magnetic actuators for magnetic switches and solenoids. Sensors for activators and industrial applications. Time gauge.

P/N	NBI-4	NBI-6	NBI-6M	NBI-8
Br (mT)	400-490	490-570	480-560	700-800
bHc(kA/m)	256-312	312-384	336-400	382-430
iHc(kA/m)	576-736	640-800	960-1360	680-840
(BH)max(kJ/m <sup>3</sup> )	28-36	40-56	44-60	60-68
Recoil permeability	1.1-1.22	1.1-1.22	1.1-1.22	1.1-1.22
Recoil temperature coefficient of Br. (% /°C)	-0.10 (15-100°C)	-0.09 (15-100°C)	-0.10 (15-100°C)	-0.10 (15-100°C)
Magnetizing field (Ka/m)	≥1592	≥1592	≥1990	≥1592
Density(g/cm <sup>3</sup> )	4.0-4.5	4.5-5.5	5.0-5.5	5.0-5.5
Ring crushing strength constant (N/mm <sup>2</sup> )	> 78	> 78	> 78	> 78