

# NdFeB and SmCo agglomerated permanent magnet



## Magnetic and physical properties of NdFeB and SmCo

Specific properties of material	SmCo Agglomerated material	NdFeB agglomerated magnets	
Residual flux density $B_r$ (T)	0.6 – 0.64	0.48 – 0.58	Residual flux density $B_r$ (T)
Coercive force $H_{cB}$ (kA/m)	330 – 338	310 – 382	Coercive force $H_{cB}$ (kA/m)
$H_{cJ}$ (kA/m)			$H_{cJ}$ (kA/m)
	517	637	
Maximum specific energy $(BH)_{max}$ (kJ/m <sup>3</sup> )	64 – 68	40 – 56	Maximum specific energy $(BH)_{max}$ (kJ/m <sup>3</sup> )
Temperature coefficient for $B_r$ ( $B_r$ ) %/K	-0.04	-0.12	Temperature coefficient for $B_r$ ( $B_r$ ) %/K
Temperature coefficient for $H_{cJ}$ ( $H_{cJ}$ ) %/K	-0.30	-0.35	Temperature coefficient for $H_{cJ}$ ( $H_{cJ}$ ) %/K
Density (g/cm <sup>3</sup> )	5.2 - 5.7	4.8 - 5.0	Density (g/cm <sup>3</sup> )
Maximum operating temperature $T_{max}$ (°C)	140		140
Binder	PA-12		Epoxi
Moulding process	Injection	Compaction	
Material (alloy powder)	SmCo5	MQP microcrystalline powder	

Shapes, sizes: complex geometries.

### APPLICATIONS:

electrical machines and special transducers for brushless micromotors of AC