

**STANFORD****MAGNETS**

## SmCo Magnets

Disc, Block, Ring,  
Rod, Pot

Meets ISO 9001, ISO14001 Standard  
Professional Technical Team  
Quick Delivery

**Sm1Co5**  
**Sm2Co17**  
**SmCo26**

## Advantages

- Strong Magnetic Strength
- High Temperature Resistance
- Stable Performance
- Reliable Performance Against Corrosion

Comparison of physical properties of sintered neodymium and Sm-Co magnets

Property (unit)	Neodymium	Sm-Co
Remanence (T)	1–1.5	0.8–1.16
Coercivity (MA/m)	0.875–2.79	0.493–2.79
Relative permeability (–)	1.05	1.05–1.1
Temperature coefficient of remanence (%/K)	–0.09..–0.12	–0.03..–0.05
Temperature coefficient of coercivity (%/K)	–0.40..–0.65	–0.15..–0.30
Curie temperature (°C)	310–370	700–850
Density (g/cm <sup>3</sup> )	7.3–7.7	8.2–8.5
CTE, magnetizing direction (1/K)	(3–4)×10 <sup>–6</sup>	(5–9)×10 <sup>–6</sup>
CTE, normal to magnetizing direction (1/K)	(1–3)×10 <sup>–6</sup>	(10–13)×10 <sup>–6</sup>
Flexural strength (N/mm <sup>2</sup> )	200–400	150–180
Compressive strength (N/mm <sup>2</sup> )	1000–1100	800–1000
Tensile strength (N/mm <sup>2</sup> )	80–90	35–40
Vickers hardness (HV)	500–650	400–650
Electrical resistivity (Ω·cm)	(110–170)×10 <sup>–6</sup>	(50–90)×10 <sup>–6</sup>

# Samarium Cobalt (SmCo) Magnets



## Samarium Cobalt (SmCo) Applications



Motors



Automotives



Aerospace



Medical



Semiconductor



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