



R30005

1. Brief introduction:

R30005(HiperCo50) is a high saturation magnetic induction strength iron cobalt vanadium soft magnetic alloy, characterized by high saturation magnetic induction strength, high Curie temperature (980 °C), and high magnetoelastic coefficient ($60-100 \times 10^{-6}$). Due to its excellent magnetic properties, R30005 is suitable for applications that require high magnetic induction intensity and high-temperature stability, such as micro motor rotors, electromagnetic pole heads, relays, and transducers.

2. Chemical composition under ASTM A801 standard:

Grade	chemical composition,%									
	C	P	S	Cr	Mn	Si	Ni	Co	V	Fe
	MAX									
R3000 5	0.025	0.015	0.01	0.15	0.15	0.15	0.25	47.5~49.5	1.75~2.1	Remainder

Remarks: If require adjustments for some chemical compositions, pls consult with us.

3. Physical and mechanical properties ASTM A801 standard:

Grade	Density (g/cm ³)	Electrical resistivity (uΩ•m)	Curie temperature (°C)
R30005	8.12	0.4	940
Saturation magnetostriction, 10 ⁻⁶	Saturation induction, kG(T)	Modulus of elasticity, psi (GPa)	Thermal conductivity, cal/cm · s · °C (W/m·K)
60	23.8	30*106	0.0712

4. Main product types:

wire,rod, bar,strip.

5. R30005 Source URL:

<https://www.hitealloy.com/product/r30005.html>