

High-carbon chromium Bearing Steels Grade, Chemical Composition, Applications and Heat Treatment

Outline

High-carbon chromium Bearing Steels

Steel Grade			Chemical Composition (%)				Properties	Heat Treatment			Hardness		Main Application
NACHI	AISI SAE	JIS	C	Si	Mn	Cr		Annealing (°C)	Hardening (°C)	Tempering (°C)	Annealed hardness (HB)	Practical hardness (HRC)	
SUJ2	52100	SUJ2	1.00	0.3		1.5	High wear resistance and dimensional stability	750–790 SC	810–850 OQ	150–190 AC	Max201	62–65	Bearings Gages Rolls
SUJ3		SUJ3	1.00	0.6	1.0	1.0	Good hardenability		790–830 OQ		Max207		Large bearings

SC: Slow cooling OQ: Oil quenching AC: Air cooling