



M1 HIGH-SPEED STEEL

COMPOSITION %	C	Cr	Mo	W	Co	V
	0.83	3.80	8.5	1.80	-	1.20
STANDARDS	HS 2-9-1, AISI M1, DIN W.Nr 1.3346					
CONDITION AS	Soft-annealed			Max 260 HB		
AS SUPPLIED	Cold Drawn			Max 310 HB		
	Cold Rolled			Max 310 HV		

APPLICATIONS

Drills, taps, reamers, end mills, tool bits and dies.

HEAT TREATMENT

- Soft-annealing 850°C – 900°C for 3 hours, followed by slow cooling at 10°C per hour down to 700°C, then air cooling.
- Stress relieving 600°C – 700°C for approx. 2 hours at temperature, slow cooling down to 500°C.
- Hardening with preheating in two steps 450°C – 500°C and 850°C – 900°C, and austenitizing at 1100°C – 1190°C.
- Two tempering at 560°C are recommended (maintain at least one hour each at temperature).
- Hardness range : 62-65 HRC.