

General Information	With chromium-manganese content possessed good machinability, mechanical wear resistance and edge holding quality. Vanadium-Wolfram content reduces high working temperature wear and retention of temper temperature.							
Comparable standards	AISI/SAE	DIN	JIS	Assab	BS	SIAU		
	O1	100MnCrW4	SKS 3	DF2				
Chemical analysis (%)	C	Mn	Si	Cr	V	W	P	S
	0.09-1.05	1.00-1.20	0.15-0.35	0.50-0.70	0.05-0.15	0.50-0.70	≤0.035	≤0.035

Heat treatment	
Hardening:	<ul style="list-style-type: none"> - Temperature: 780-830°C (Slow heating and pre-heat at 350°C and 650°C). - Duration: 30 mins per 25mm thick.
Quenching:	<ul style="list-style-type: none"> - Medium: warm oil, salt bath.
Double Tempering	<ul style="list-style-type: none"> - Temperature (2 hrs minimum) 250°C, better toughness. (58-59HRC). - Temperature (2 hrs minimum) 200°C, higher hardness. (60-61HRC).

Tempering Curve (only for reference):

